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The Journal of the Fire Protection Profession Since 1877

Vol. 90, No. 1 JANUARY, 1937 Member A.B.C.—A.B.P.

Even the Most Showy of Places Can Be a Bad Neighbor Because of the Fire Risks to Adjoining Buildings

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Modern throughout, this Mack Fire Apparatus Type 55 Quadruple Combination was built for Norwood, Pa. It carries 240 feet of ladders and 1000 feet of hose. The pump, of 600-gallon capacity, is of the pressure-volume centrifugal type, fully inclosed. Booster tank has 100-gallon capacity. The equipment tray beneath the ladders is accessible from either side and is electrically lighted. A "Light From Mars" oscillating warning light surmounts the streamlined gasoline tank.

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VOL. 23, NO. 312 Newark, N. J., Tuesday, December 29, 1936 ★★★ 3 CENTS

THE WEATHER

CITY DARKENED 6 HOURS AS FIRE HALTS POWER

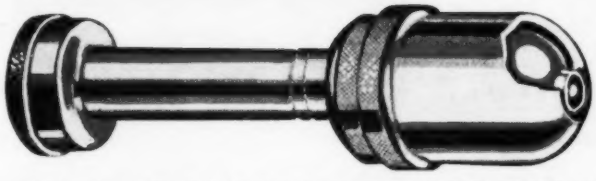
Point No Point

uld Light No Light

By STEPHEN ROGERS

Below: The Newark Fire Department in a recent demonstration of one of its new Akron Vapor Nozzles.

Stubborn fire quickly extinguished with an Akron Vapor Nozzle, after other methods failed.



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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

ROBERT H. LOCKWOOD
Associate Editor

FRED SHEPPERD
Editor

N. N. WOLPERT
Assistant Editor

. . . do hereby resolve,

» New Year's is traditionally the time of year to make resolutions. And to indulge in "crystal gazing" about what the future has in store for us.

» Both are pleasant pastimes. But, more often than not, we change our minds before the year is over, and then console ourselves with a more convenient philosophy.

» So, as we enter 1937—our 60th year of service to the fire field—we resolve not to resolve. But, we are reminded of the great responsibility which attaches to the work of protecting the lives and property of our fellow-citizens against the ravages of fire. It is a task requiring highly trained, loyal men, and much specialized equipment.

» For 1937 make all the resolutions you wish, but do not forget that the effective discharge of your responsibility depends upon your men and their equipment.

» Let's modernize in 1937! «

The Publishers

In This Issue

VOL. 90 January, 1937 No. 1

Page

With the Editor 7
The Penalty for Fidelity — Speaking of Smoking — Hazardous Butane
By Fred Shepperd

Butane Gas Explodes (Illustrated) 8
Fire and Explosion at Crowley, La., Claimed Five Lives and Endangered Entire Community

When May Municipality Recover for Damage to Fire Apparatus? .. 10
By Leo T. Parker

Small Fire Paralyzes Newark, N. J. (Illustrated) 12
Oil Switch in Power Station Darkens Larger Part of City

Promotional Study Course (Continued) 14

The Round Table Department 16
Discussion on Experience with Fires Caused by Oil Burners in Homes (Continued)

The Watch Desk 24
By Roi B. Woolley

The Cover 26

Questions and Answers 27
Replies to Questions by Readers

What's Burning 28

Convention Dates 31

Manufacturers' Announcements 32

False Alarm (Illustrated) 40
Humorous Side of the Fire-Fighting Profession

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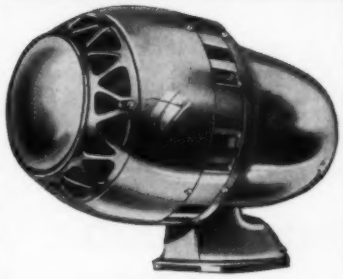

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Dimensions	15" long, 9" high
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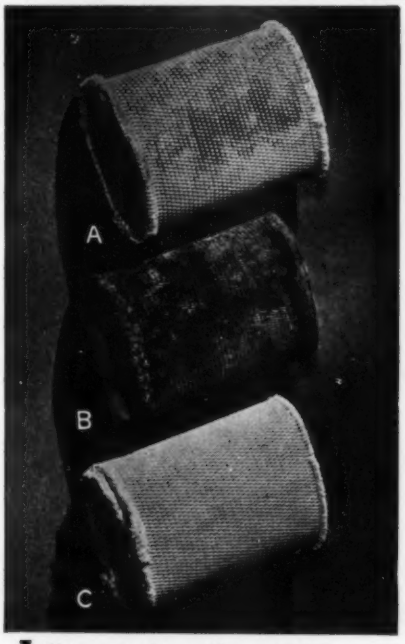

A Not processed for mildew protection.
B Processed for mildew protection by a competitor.
C PROVAR PROCESSED Republic Fire Hose —no sign of mildew.

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Unretouched photo showing results after samples were saturated with water and exposed to moist atmosphere for six months.

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HUMAN LIVES LOST 100,000

INDIRECT FIRE WASTE . . . ? ? ? ?

THE National Fire Loss for Ten Years—1926-1935—Exceeded These Figures. Yet Nearly All Fires May Be Extinguished in Their Incipiency by a Bucket of Water.

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FIRE ENGINEERING

The Journal of the Fire Protection Profession

Volume 90 JANUARY, 1937 No. 1

With the Editor

The Penalty For Fidelity Louis Hansen is no longer Fire Chief at Lincoln, Neb. This capable officer was forced to retire because he would not sign a recommendation prepared by one of the City Commissioners for the purchase of a low-priced fire hose. "I could not honestly recommend the hose be purchased," said Chief Hansen. His retirement was thereupon demanded on the grounds of "insubordination."

Chief Hansen had learned through his thirty years' experience in the fire service that it was far more economical in the long run to buy only the best of fire hose; the City Council thought it knew more about hose than the Chief. He refused to break faith with those he served—the public. His reward for fidelity was dismissal from the fire service.

It is very likely that the Council never heard of smooth waterways in hose under pressure, of protective treatment of hose fabrics, of rubber blends that check formation of destructive acids in hose, of large factors of safety in fire hose. And yet they were willing to match their judgment of hose quality with that of the Chief.

Henry Clay never became President of the United States, but he chose to be right rather than be President. Of Chief Hansen it may well be said that he would rather be right than be Fire Chief.

* * *

Speaking of Smoking On December 30 a young society woman died of burns suffered when a carelessly tossed match transformed into flaring torches the filmy dresses of eleven women at a gay holiday season ball held at Selma, Ala.

The ten other women landed in a hospital and a dozen men were treated for burns received when they fought to smother the fire that leaped from woman to woman.

This tragedy will cause more than a little apprehension on the part of Fire Department officials in cities permitting smoking in theatres. Match heads have a way of snapping off and carrying fire to points at which it shouldn't be. It's easy to visualize what might happen in a crowded theatre if such a match head should land on the flimsy dress of a woman patron.

Smoking restrictions in theatres should be tightened, not relaxed!

* * *

Hazardous Butane The diastrous explosion of butane gas at Crowley, La., last October emphasizes the growing seriousness of transporting volatile, inflammable liquids over highways. While the tank of butane involved in this accident was not on the highways at the time, it had just returned from a distribution route, and might just as well have let go in the business district of the city. In that event, the damage wrought might have been appalling.

The use of butane is growing in rural districts, and transportation of the liquefied gas over highways is increasing. Regulations governing its transportation over public highways are imperative if trouble is to be checked in the future.

Fred Sheppard

Butane Gas Explodes

Fire and Explosion at Crowley, La., Claimed Five Lives and Endangered Entire Community

Twisted Ruins of the Gasoline Station

A POLICEMAN was driving by a gasoline filling station at which there appeared to be a very much excited negro laborer. The negro spied the car while it was still in hailing distance.

It was one time that the sight of a policeman was most welcome.

"Hey there. Call the Fire Department."

The department was but a half block away.

The officer stopped, looked around and thought that there was some kind of a hoax.

"I don't see any fire," he shouted to the negro.

"There ain't none yet, but there will be one pretty quick," was the reply.

This would have been a good story to add to the collection of jokes told around a fire house, but for what happened in the next few moments. After the fire did start, as the negro predicted, and after it was possible to take stock of the damage done, it was found that five lives were lost, three buildings were destroyed by fire, and several others wrecked by a series of explosions.

All this happened in Crowley, a Louisiana town of about 7,600 population, located in the southern part of the state.

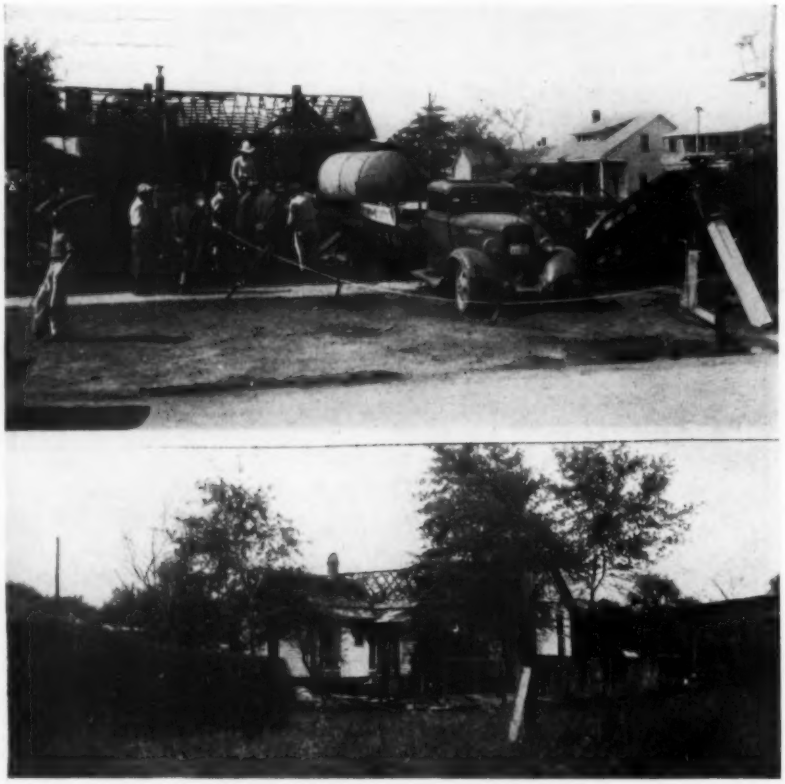
Many houses, due to lack of gas service, use butane gas instead. The gas is supplied in liquid form. It was the practice for the owner of a gasoline filling station to place a tank of 1,000 gallons capacity on a truck and haul it to Eunice, twenty miles from Crowley, where the tank was filled. Normally the tank was kept on a frame platform four feet south of the frame metal clad wall of the filling station and warehouse building. The platform was seven feet wide and ten feet long and forty inches off the ground. Before the tank was returned on the platform, it was usual to call on a number of customers and fill the tanks of those who desired the service. The truck then returned to the station and the tank was loaded on the platform.

Tank Left on Truck

The day previous to the fire, the tank was loaded on the truck with the aid of a winch located back of the cab of the truck. There was about one hundred gallons of gas in the tank. After the truck reached Eunice, the tank was filled with 500 gallons of gas so that in all there were 600 gallons. When the truck returned to the filling station, the truck backed up to the platform, but the car was not unloaded until the following morning (October 22).

Platform for Tank

The tank rested on two 4 x 6-inch timbers, ten feet long, which ran lengthwise, and five 4 x 6-inch timbers, which were placed crosswise. The tank was held in place on the timbers by three ½-inch rods around the tank, bolted to the timbers. At the rear of the tank was the discharge outlet, three inches above the bottom. This consisted of a 2-inch outlet, with cast iron bushing, brass valve, galvanized ell and elbow, with



Two Views of the Results

Upper, the gasoline station showing the tank and truck in front of the loading platform. Lower, one of the nearby dwellings that was destroyed.

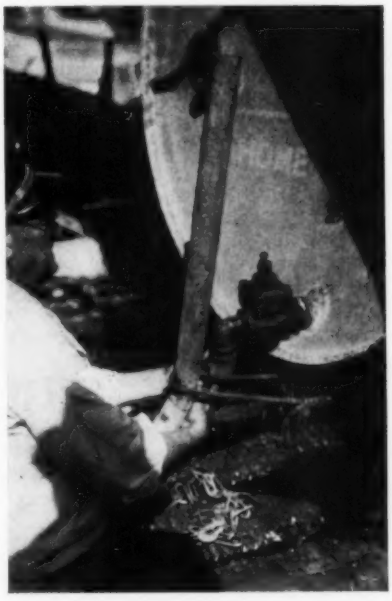
connecting nipples for a hose coupling. The tank also had an inlet for filling and a ½-inch gas return line for the return of vapors when servicing underground tanks. There was a ¾-inch pop-off valve at the top of the tank.

Pipe Used for Unloading

The following morning a 2-inch galvanized iron pipe, 5.5 feet long, was placed in an upright position in the rear of the platform and chained in place to prevent it from kicking out at the bottom. A steel cable was looped around this pipe and hooked under the bottom of the skid tank to pull the tank from the truck bed to the platform.

With the exception of about eighteen inches, the tank had been pulled from the truck to the platform. Two negroes who were unloading, noticed that the tank pulled hard but continued to pull. Then the tank seemed to move freely. What had happened was that the discharge pipe and valve had broken off.

Away they rushed to notify the operator of a gasoline filling station seventy-five feet south, and persons



Showing How the Pipe Was Braced to the Tank Holding the Butane

in nearby places. It was one of these two who shouted to the policeman to call the firemen. Those warned started to warn others to get out of the district. School children were rushed away from the danger zone, and none too soon.

The fluid vaporized before reaching the ground, and being heavier than air, hung close to the ground filling every depression. A slight northwest wind carried the vapors to a metal trash burner at the court house square, about 162 feet south of the gas tank. The vapors ignited and flashed back to the tank and buildings. It flashed over a corner where a moment before some children were standing before they were rushed away by the policeman.

Four distinct explosions are believed to have taken place. The last, the loudest, was heard several miles distant.

When the explosion occurred, all but one dwelling, sixteen feet west of the warehouse, had been vacated. In this there were five persons. They were trapped when fire spread to the warehouse and filling station, and to two dwellings to the west. Four of these people died from burns the same afternoon or evening. A negro who was passing by at the time of the flash was burned and died that night.

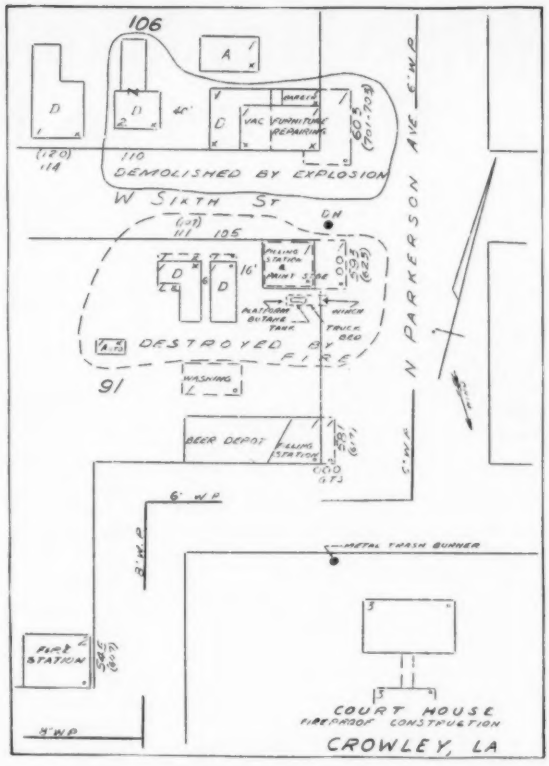


Diagram Showing Extent of Fire and Explosion Damage

Fire Department Prompt

The Fire Department arrived shortly after the explosion and soon had four hose streams playing on the filling station and two dwellings. Fire companies from Rayne and Eunice arrived shortly after the explosion. The fire was under control in about twenty minutes and was confined to three buildings, that became completely envolved following the explosions. These buildings were completely destroyed, as well as two other buildings.

Five persons died as the result of this unfortunate chain of incidents. However, the residents of Crowley owe much to the negro who had sufficient knowledge of the characteristics of the gas, and the presence of mind, to warn the community of a fire that he was certain would take place.

To guard against future accidents of this type, Chief R. A. Bogan, Baton Rouge, and President of the I. A. F. C., recommends state legislation that will control the handling of liquefied petroleum gas. For those communities interested in establishing local regulations, the National Board of Fire Underwriters has issued a small pamphlet on the design, installation and construction of containers and pertinent equipment for the storage and handling of liquefied petroleum gases.

(Photographs, courtesy of Chief R. A. Bogan, Baton Rouge, La.; Diagram, courtesy of Louisiana Rating and Fire Prevention Bureau)

66 Runs—$63 Loss

During 1936, the Fire Department of Dennison, Ohio, made sixty-six runs of which two were out of town. The total fire loss on these runs was but $63.50, of which $43.50 was the property loss, and $20 the loss on contents. L. V. Hill is Chief.

Chief Hansen Forced to Retire

By unanimous vote of the Council of Lincoln, Neb., Chief Louis Hansen, who has been head of the department for more than fourteen years, has been asked to retire on a pension against his own wishes. Chief Hansen is forty-nine years old and has been with the department for nearly thirty years.

The Chief was charged with "insubordination" for failure to recommend the purchase of hose wanted by the Commissioner.

When May Municipality Recover for Damage to Fire Apparatus?

Circumstances Under Which the City May Obtain Redress for Collisions with Vehicles of Individuals and Industrial Firms

By LEO T. PARKER
Attorney-at-Law

CONSIDERABLE discussion has arisen from time to time on the question: When and under what circumstances may a municipality recover for damage to fire apparatus which collides with vehicles owned by private individuals and industrial firms?

Generally speaking, the outcome of litigations of this nature depends upon whether the collision resulted from negligence of the driver of the privately owned vehicle.

Obviously, a city is entitled to recover damages from any private individual, firm, or corporation where the testimony proves that an accident, effecting damage to Fire Department equipment, resulted from negligence on the part of the individual, firm, or corporation driver.

For instance, in a leading case, Shreveport vs. Railway Company, 118 So. 872, it was disclosed that a city sued a railway company for damages to a fire truck which was wrecked when it collided with a pole as a result of the driver swerving from the street to avoid colliding with a train at a railway crossing.

The municipal driver of the fire truck testified that he was returning from a fire and approached the crossing, believing that the usual flagman was there. When he was near to the track he observed a train approaching and he swerved the truck to avoid a collision.

Witnesses testified that the flagman was not at his post when the train and fire truck approached the crossing. Therefore, the higher court held the city entitled to recover $6,900 damages, and said:

"The flagman was not at his post, and that this, and not any recklessness on the part of the driver of the truck, was the direct cause of the accident. . . . The driver of the truck had a right to assume, when no flagman appeared, that no train was approaching; and if thereafter he perceived a train approaching, he was required to do no more than what then seemed to him best to avoid the collision."

When Railway Engineer Is Not Liable

Frequently the higher courts have held that a vehicle operator, whether an automobile driver, a street car motorman or a railway engineer, is legally bound to operate his vehicle in night-time, so that he may stop it within the distance illuminated by the headlights. However, this rule does not apply if a railway engineer sounds a whistle warning the operators of fire apparatus of the approach of the train. This is true because the railway right-of-way is owned by the railway company.

For example, in Del Buone vs. Illinois Central Railway Company, 124 So. 694, it was disclosed that a truck was struck by a locomotive during a terrific downpour of rain in the day-time. It was argued that the railroad engineer was negligent, because the range of vision was so obstructed by the terrific downpour that the engineer could see only a short distance ahead, and that the speed of the train was such that the train could not be stopped within a reasonable distance. However, since it was proved that the engineer had blown the whistle on approaching the crossing, the court held the engineer not negligent, and said:

"To require of trains that they shall at all times operate at such speed as will permit of their being stopped within the distance illuminated by their headlights would seriously interfere with train schedules, in which the general public is as much interested as are railroad companies. . . . An engineer may approach a crossing with the full expectation that those who wish to cross the track will have due regard for the superior right of the train."

Legal Rule Does Not Apply to Street Car Operator

Obviously legal rules applying to railway trains are not applicable to street cars, because the latter are operated on municipal streets.

For example, in Union Traction Company of Indiana vs. City of Muncie, 133 N. E. 160, it was disclosed that a fire truck, traveling at a high rate of speed, in response to an emergency fire alarm, collided with a street car. The truck and apparatus was damaged to the extent of $4,000.

The city filed suit against the street railway company and proved that the wreck occurred because the motorman operated the street car in a negligent manner, and in violation to a city ordinance, giving the right-of-way to Fire Departments.

The street car company attempted to avoid liability and sued the city to recover damages to its street car. Nevertheless, the court held the city entitled to recover $4,000 for damages to its fire truck, saying:

"It is well settled that the maintenance and operation of a Fire Department by a municipality for the purpose of preventing and extinguishing fires is the performance of a governmental act, and therefore it is not liable for the negligence of its firemen, while engaged in the discharge of their duties as such. . . . The ordinances in question relate to the . . . right-of-way of its Fire Department over its streets, and the duty of persons in charge of street cars to stop the same and remain stationary upon the approach of any fire apparatus. The adoption of these ordinances was clearly within the police power of appellee (city), as conferred by statute."

Usually a street car motorman is not negligent, but fully within his

SUBJECTS TREATED IN THIS ARTICLE

When City May Recover for Accident to Fire Apparatus
If Railway Engineer Sounds Whistle Approaching Intersection He is Not Liable for Collision
The Law as to Street Car Collisions with Apparatus
Duty of Street Car Operator to Stop on Approach of Apparatus
When Failure to Hear Siren is Legal Excuse
Right of Firemen to Recover Damages
Rules as to Traffic Lights

rights, if he stops his car any place except in a street intersection, upon hearing the alarm of approaching fire apparatus. So held the higher court in the late case of Souza vs. Market St. Ry. Company, 289 Pac. 665.

The facts of the case are that when a street car motorman heard approaching fire apparatus alarm, he stopped the car. The fire engine scraped the side of the street car resulting in considerable damages. In holding the street car motorman not negligent in stopping his car in close proximity to a street intersection, the court said:

"In stopping where it stopped, the car acted in accordance with the mandate of the statute—to clear the intersection."

When Failure to Hear Alarm is Legal Excuse

Of course, the circumstances may be such that, although the alarm of approaching fire apparatus is being sounded, the driver of a private vehicle is not negligent in failing to clear the way where the testimony indicates that for some good reason, as a thunder storm, near-by train, poor sounding alarm, or the like, the driver did not hear the alarm.

For illustration, in the leading case of Sacramento vs. Hunger, 249 Pac. 223, it was shown that a city sued the owner of an automobile to recover the value of a demolished municipal fire vehicle, which collided with the private machine, when the driver of the latter failed to drive to the curb and stop. The city introduced testimony showing that the municipal motor vehicle was equipped with a siren, which was being sounded continuously as the vehicle was being driven at the rate of 45 miles per hour.

However, since the owner of the automobile proved that several individuals in the vicinity of the accident did not hear the siren, the court held the city not entitled to recover a judgment, saying:

"There can be no doubt that there is ample testimony to show that the siren was continually sounded from the time the car started to the time at which the collision occurred, but, as in the very nature of the situation, there could be no direct testimony that said Hunger (automobile owner) at any time heard the siren before the accident. . . . Obviously, the question whether said Hunger heard the siren was one of inference to be drawn by the jury from all the testimony in the case."

Right of Fireman to Recover Damages

The law is well settled that a city may recover for damage to fire apparatus, and also a fireman may recover damages for his personal injury, if the collision resulted from negligence of the driver of a privately owned vehicle.

For example, in Benefield vs. Eagle, 282 Pac. 213, it was shown that although the siren of a Fire Chief's car was being sounded, the driver of a motor truck attempted to drive across a street intersection in front of the Fire Chief. The Chief's car collided with the truck and the Chief was injured. He sued the owner of the truck for damages for the injuries sustained.

The owner of the motor truck attempted to avoid liability on the contention that the Fire Chief was violating a municipal speed law ordinance when the accident occurred. However, the lower court held the driver of the truck guilty of negligence which proximately contributed to the accident, and therefore liable. This court said:

"We conclude that persons in control of fire apparatus belonging to a regularly established Fire Department are not, in using the streets of their city in responding to fire alarms, bound by the speed limits fixed by ordinance for ordinary traffic."

Negligence Makes Private Driver Responsible

Also, in another leading case, Padgett vs. McKissick, 280 Pac. 409, it was disclosed that a municipal fire truck was traveling to a fire. The driver of a motor truck saw the approaching fire truck and failed to turn to the curb, and kept driving for some considerable distance in the direction of the fire until he came to a street intersection where he turned to the right. The driver of the fire truck, instead of passing the motor truck on the left side, attempted to pass it on the right side and ran into it, seriously injuring a fireman who sued the owner of the motor truck for damages. In holding the motor truck owner liable, the Court said:

"Had the driver of the defendant's motor truck stopped his vehicle at the street line . . . the fire truck would have passed without interference."

Traffic Light Signal Rule

Generally speaking, the higher courts have upheld the validity of city ordinances which require private automobiles to stop near the right hand curb upon hearing a siren of an approaching fire vehicle. However, this law is not applicable with respect to streets on which traffic lights are installed, particularly if the city ordinances fail to specifically apply to the peculiar situation.

For instance, in Stone vs. Wood, 157 Atl. 829, it was disclosed that a city ordinance stated that, in case of any alarm of fire, it shall be the duty of drivers of vehicles *in a street in which fire apparatus is approaching* to move to the right or left of the center of such street, so as to give free passage to such apparatus. However, the ordinance did not state the duty of an automobile driver who approaches a traffic light.

A street intersection was equipped with an automatic traffic signal. A fire truck was approaching the intersection confronted with a red light in the signal. The driver of a private automobile was approaching from the fire truck driver's left, but was running toward a green light. The fire truck was equipped with an electric siren and a bell operated by a rope, both of which were sounding. The private automobile was moving at a rate somewhere between fifteen and forty miles an hour, and the driver never saw or heard the fire truck until just before the crash. On account of the fact that the driver of the private automobile was approaching the street intersection and entered the same when confronted with the green light, the higher court held the driver not negligent, and said:

"There was no fire apparatus 'approaching' in the street that the defendant (automobile driver) was traveling. So assuming that the siren and bell on the truck were such an 'alarm' as the ordinance contemplated, the ordinance applied to the defendant *only after he entered the intersection area*, and his noncompliance did not proximately contribute to the collision."

Under all circumstances the owner of a private automobile is liable for an injury to a fireman and he is responsible for the damage to fire apparatus, if the collision occurred while the private automobile is traveling in excess of speed laws.

For instance, in Hoffman vs. People's Motorbus Company, 288 N. W. 948, a litigation involved a collision between a motor bus and a Fire Department truck in a congested part of a city. The motor bus company was held liable for $1,500 damages, payable to the driver of the fire truck, as a result of injuries sustained, since the testimony proved that the motor coach was traveling in excess of the legal speed limit of 10 miles an hour in the congested district at the time of the collision.

Obviously, in all cases in which the courts hold injured firemen entitled to recover damages for injuries, resulting from negligence of private individuals, the city may also sue and recover for damage to its Fire Department apparatus.

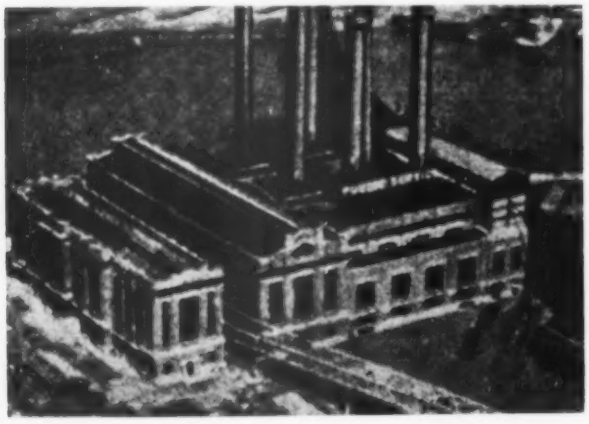
Small Fire Paralyzes Newark

Oil Switch Fire in Power Station Darkens the Larger Part of Newark, N. J., for Over Five Hours

A SHORT circuit somewhere in the power equipment of the Point-No-Point Power Station at Newark, N. J., resulted in the ignition of oil in an oil switch, necessitating shutting off all generating equipment and depriving the larger part of Newark, N. J., of electric light and power for a period of over five hours on December 30.

The oil switches, of which there are nearly 100 in the station, serve to control 13,000 volt electric circuits.

The fire occurred at 3:30 p.m., and despite the efforts of the power plant employees and the Fire Department, it continued to burn unil 5:22 p.m., The power plant employees endeavored to extinguish the fire with portable carbon tetrachloride extinguishers and portable carbon dioxide extinguishers, but were able to make no headway. Their efforts continued for 35 minutes before a call was sent to the Fire Department for a company.



Point-No-Point Plant of the Public Service Corporation of New Jersey in Which the Fire Occurred

Upon arrival of the department, the fire was found burning in a small vault containing three oil switches, two of which were apparently involved. The intense heat encountered, the vigorous burning of the oil in the switch containers, and the subsequent discovery of fused steel structural members, indicatetd that the short circuit had heated the switch blades and conductors to a very high temperature. To this heat was added that of the burning oil.

Due to the presence of high voltage, extreme care had to be exercised in the early stages of the fire by those operating on it. Subsequently, the current was turned off and from that time on the largest part of the city were without electric power.

The Fire Department, upon arriving, employed the portable extinguisher carried by the company, but without any appreciable effect. A box alarm was then sent (22 minutes after the still alarm had been received) and Chief John J. Towey, who arrived with the box assignment, took command of the fire. He immediately communicated with the Police Department and requested that all patrol cars, each of which carries a portable carbon dioxide extinguisher, send or bring the extinguishers to the fire. This was done as rapidly as the patrol cars could be reached; the police broadcasting station was put out of commission by the failure of the electric current.

The Fire Department employing gas masks, used these extinguishers, but, in spite of this, no headway was made against the blaze. There was quite a strong draft through the vault, and while the fire would be snuffed out from time to time, immediately after the gas was carried away by the draft the heated parts of the switching equipment reignited the vapors and the fire was again burning in all its fury. Due to close quarters and intense heat, the men were seriously handicapped in using the extinguishers.

At about 6:30 p.m., after the fire had been burning for approximately three hours, Chief Towey suggested to the power plant officials that a water vapor nozzle be employed. At first the officials were adamant in their opposition to the use of water, due to the danger of damage to electrical equipment in the station. However, when it was evident that hand extinguishers were not able to bring the fire under control, the power officials agreed to permit the use of water and Chief Towey then ordered a line stretched from an engine in the street up to the fifth floor of the station, where the fire was burning, and pressure of 150 pounds was ordered at the engine. A vapor nozzle was attached to the line of hose and through a hole cut in the wall of the vault, the nozzle was put in operation. After a few seconds the fire was darkened, and the nozzle was shut off. There was a small flashover and the nozzle was again reopened, completing its work in a few more seconds.

No Ill Effects from Water Used

Subsequent inspection of the vault indicated that the amount of water employed was too small to have done any damage to any of the equipment not involved by the fire. As a matter of fact, the equipment within and around which the fire had been burning was so hot that the moment the fine water spray struck it, the water was vaporized into steam and did not remain as moisture on the surface of the equipment. The nozzle used was one of six purchased by Newark several months ago. This was the first time a vapor nozzle had been used by the department.

Even after the fire was out, it was not possible to cut out the defective switch immediately and put the balance of the station in service, due to the fact that there was a heavy coating of soot over many of the exposed conductors and live parts of equipment. This soot, it was felt by the engineers of the power company, might serve as a conductor between exposed parts of high voltage apparatus and cause damage should current be turned on before all parts of the equipment was thoroughly cleaned.

The use of masks by firemen operating on the fire was necessitated by the presence of dense carbon tetrachloride fumes, created when hot metal parts were struck by the con-

tents of extinguishers, during the early stages of the fire.

Effects of Current Interruption

The dependence of modern civilization upon electricity was well demonstrated by this fire, which in itself did not amount to $50,000 worth of damage to the power plant equipment.

All business places were without lights; theatres had to close their doors; hospitals were seriously handicapped, particularly where operative work was being done; the airport at Newark was darkened, the radio station at the airport as well as other radio stations around the city were put out of commission. The street traffic lights and street lighting system were also darkened. Many a man left a barber shop half shaved; hundreds of people were trapped in elevators; oil heating plants throughout the city were made inoperative; electrically operated clocks stopped; stores had to guide their customers to the street, and even the street railway system had to cease operation for a short period.

Portable Generators Used

During the emergency, portable lighting generating equipment proved very helpful. While the fire was still burning in the generating station, floodlighting equipment was used inside the building to safeguard the men who were battling the flames. Floodlighting equipment was utilized both inside the generating station and outside illuminating transformers, etc., enabling the Public Service workmen to restore the service, after the fire was brought under control.

The Newark Police Emergency Squad, which had portable generators of their own, was assisted by other portable generators and floodlights which were loaned by the Fire and Police Departments of several surrounding towns, including Jersey City, Irvington and Bloomfield, as well as by the Homelite Corporation, manufacturers of these sets.

Illuminate Air Hazards

In all, there were 14 portable generators used in various parts of the city.

These generators with floodlighting equipment were employed to light water towers and other high obstacles around Newark airport, which was in complete darkness because of the power failure. Additional sets were supplied to several hospitals for use in the operating rooms.

Oil Switch Vault in Which the Fire Occurred

The Newark post office, which was handling the heavy holiday mail, was lit up with six floodlights, the current for which was supplied by two portable generators. A portable generator supplied by the Irvington Fire Department was used to supply light at the Fisher Baking Plant, which permitted them to remove tons of bread and cake from the ovens and have them wrapped by hand.

In many other instances these units proved their worth.

Chief John C. Moran Retires

Chief John C. Moran, who has served the Fire Department of Hartford, Conn., for fifty years, twenty-three of which he has been Chief, recently retired. He was host to the fourteenth annual convention of the New England Association of Fire Chiefs at Hartford last year, and has been active in the affairs of the I.A.F.C.

Ex-Chief John C. Moran

and the New England Association for a number of years. He is an ex-President of the New England Association.

Ex-Chief Moran joined the service in 1886 as a substitute and was appointed stoker the following year. In 1899 he was made engineer; Second Deputy Chief on October 1, 1908; First Deputy Chief on May 1, 1912, and the following year, Chief.

He attended the New York Fire College and later was sent to Boston to study the fire methods there. In 1909 he was made instructor of Hartford's first drill school.

Ex-Chief Moran is spending the winter at Clearwater, Fla.

Massachusetts Fire Prevention Men Meet

Edmund S. Cogswell, Deputy Insurance Commissioner, and Butler R. Wilsno, of the State Tax Appeal Board, were speakers at the meeting of the Massachusetts Fire Prevention Association, which was held in fire headquarters in Malden, on November 30.

Capt. Charles F. Bell, of the Brockton Fire Department, presided. Among those who spoke briefly were Deputy Chief Arthur E. Miller, Malden; Lieutenant Theodore Munroe, Haverhill; Chief Frank Newman, Melrose; Chief Thomas A. Qualey, Medford; Chief William J. Dooling and Deputy Chief Loren A. Keddie, Malden; Lieutenant D. W. Sullivan, Somerville, and Building Inspector Arthur Guptil, Malden.

Fire stops in dwelling construction plans, the new contributory pension system for Massachusetts municipal employees, rules for gasoline and oil trucks, and legislation to provide for speedy removal of abandoned and dilapidated buildings were discussed.

Fire Commissioner J. G. Hannan, Malden, acted as host. Emil Benson, of the Rockwood Sprinkler Company, Worcester, was elected an honorary member.

HARRY BELKNAP.

PROMOTIONAL STUDY COURSE

Herein is presented a series of definitions, questions and answers designed to aid fire department officers in preparing themselves for promotional examinations. In this department, which appears monthly, will be included questions typical of examinations held throughout the country.

Definitions

Self-closing Fire Door: A self-closing fire door is a door which is normally kept in a closed position by some mechanical device.

Automatic Fire Door: An automatic fire door is one which is normally kept opened, and is arranged to close when automatically released by the action of heat on a fusible link or in some other approved manner.

Standpipe (Fire Line): An arrangement of vertical pipes with tanks and hose connections at each floor level, allowing a stream of water to flow at an outlet when valve is turned on at that floor.

Risers: The vertical lines of pipe in a standpipe system, to which hose outlets are attached on each floor.

Questions

(To be answered in next issue)

1. (a) A fire occurs in the basement of a three-story brick building constructed with steel trusses and having gable end walls, and stocked on the upper floors with machinery and merchandise in crates and cases. What part of the building would be most dangerous and require the special attention of the commanding officer?

   (b) Fire has enveloped the entire basement and is spreading up the elevator wells, mushrooming on the upper floors and roof. There is the danger of the floor beams and roof trusses giving away. What precautions should be taken? Explain fully and give your reasons therefor. The open elevator wells are on the center line of the building and one near each end wall.

False and True Questions

(Is each question false or true? Answers in next issue)

2. T F—Back-draughts are usually encountered in cases where fires have been smouldering and gases forming for some time.
3. T F—Fires which have consumed most of the air within a building frequently continue to give off inflammable gases and thereby create conditions favorable to back-draughts.
4. T F—Buildings are sometimes equipped with scuppers (floor drains to the outside of the building) and it is important for the men to see that they are clear of obstructions when overhauling.
5. T F—Acid and chemical fumes are always heavier than air and require only floor ventilation.
6. T F—Nitric acid fumes, if inhaled for any length of time, may prove fatal.
7. T F—Pipes in the plumbing system of buildings are sometimes broken as a means of getting rid of the water after fires.
8. T F—The removal of gases usually requires venting at both the top and bottom levels of buildings.
9. T F—Steel shutters furnish positive protection against exposure fires.
10. T F—Materials and buildings not involved are sometimes wet down as a means of preventing fire through lessening the danger from exposure.
11. T F—The friction loss in a line of 3-inch hose with 2½-inch couplings is as great as the loss in a line of 2-inch hose of the same length with 2½-inch couplings because in the former case couplings smaller than the hose break up the smoothly flowing stream of water.
12. T F—The net water pressure of a fire engine at work is affected by the length of hose and by the size of the hose and nozzle.
13. T F—A 700-gallon pumper can be made to deliver at least its full rated capacity at 120 pounds net pump pressure through two 100-foot 2½-inch hose lines siamesed into a one and three-quarters-inch nozzle.
14. T F—The stream of water from a chemical tank is much more effective in putting out a fire on a wooden roof than a stream of hydrant water of the same size and velocity.
15. T F—If 2½-inch couplings are used with both 3-inch hose and with 2½-inch hose, the advantages of using uniform couplings offsets the disadvantages of the greater friction loss that results from the use of 2½-inch instead of 3-inch couplings in the 3-inch hose.
16. T F—A pressure of 60 to 70 pounds at a 2-inch nozzle will throw a stream of water the maximum distance for that nozzle.
17. T F—Battered threads on the siamese of a standpipe make it useless as soon as the water that was in the tank has been used.
18. T F—Engine pressure is always equal to nozzle pressure plus friction loss in the hose and at connections.
19. T F—A fire engine standing on a street pavement 40 feet above the surface of a river can draw water from the river, if engine has been kept in proper condition, and if it is not more than 200 feet from the river.
20. T F—Automatic relief valves are absolutely necessary on pumpers of the centrifugal type.

Completion Statements

21. When backing a line out of a building, the first step usually taken is to ..... the hose just outside of the building.
22. The pipe of a standpipe system which carries the water up to the various floors is called a .....
23. Where a standpipe is to be used for fighting a fire which is spreading, ... lines are usually stretched by the fire department to supply it.
24. Radiant heat travels only in ..... lines.

Answers to Questions in Previous Issue

1. Fire occurs at the hour when the store will be most crowded, namely, 3 o'clock on a Saturday afternoon. The hazards include the crowds, highly inflammable materials in the store, large

The Darktown Fire Brigade to the Rescue

The famous Currier and Ives lithograph, "The Darktown Fire Brigade—to the Rescue," has been reproduced in color on a calendar being distributed by the Elkhart Brass Manufacturing Company, Elkhart, Ind. Copies will be sent to Fire Chiefs as long as the supply lasts.

open areas, and the possibility of panic.

Unless proper action is promptly taken, fire will spread up stairway and elevator shafts (if not properly closed in) to upper floors, and at the same time cutting the people on the upper floors off from escape by means of these channels. There will be extreme danger from loss of life from fire or from panic if fire is permitted to spread. A secondary possibility is the fire extending across the alley at the rear to buildings exposed to fire building.

Immediately upon my arrival and noting the conditions of the fire, I would transmit a call for additional apparatus, sending in second and third alarms at once. In order to delay the spread of the fire I would order members first truck company to go to the roof at once to ventilate, as well as ventilate on the fire floor by opening windows.

If building is equipped with sprinklers, first engine company would be ordered to connect to sprinkler system, and at the same time make sure that the valves controlling the sprinkler pipes in the basement are open. If standpipes are present, second engine would be connected to standpipe and men sent to third floor to connect to standpipe and to operate on fire, in order to keep it away from stairway if such operation would be faster in this particular case than stretching from street. Stores of large areas and of this height usually have several stairways, so that in the event that one stairway is used for department operations, the other stairways can be held for use of occupants in escaping. If elevator shafts are not closed in, ventilation can be very effectively produced by opening up over elevator shafts. On the other hand, if they are closed in, it will be necessary to draw the bulk of smoke and heat up one of the stairwells.

Third engine company would be ordered to stretch line from second floor standpipe outlet up stairway to fire floor, or if such a line would obstruct the escape of persons coming down stairs, this line would be stretched from the street up ladders to third floor, to assist line already in operation on this floor in holding the fire from spreading until all persons have gotten out of the building, and additional apparatus is on hand.

Of first concern is the getting of the people in the store to the street. Where such a large number are congregated, it will be a slow process to get them to the street by way of ladders, so that every effort should be devoted toward saving one or more of the stairways and the passenger elevators for the purpose.

As additional engines arrive, lines would be sent up to the fire floor, and floors above by way of ladders to head off fire, and confine it. Lines going to upper floors would operate chiefly around vertical passageways, such as elevator shafts and stairways, to prevent fire from getting out on any of the floors above the fire floor. After rescue work has been completed, then attention may be given to exposure across alley at rear, providing the fire in the fire building is being properly covered.

Problem does not state height of buildings on either side of fire building. If such buildings are lower than the fire building, it may be possible to direct some of the people in the fire building to the roofs of adjoining buildings. This would be done in the event that crowds were too great to get to the street by way of stairways, or if there were danger of any being cut off on the upper floors of the department store.

It is believed the foregoing procedure will hold the fire, as well as assure rescue of all persons in the building.

2. (1) The usual rule for calculating necessary nozzle pressure, to produce an effective stream when the distance of travel of stream is known, is to allow one pound nozzle pressure for each foot range of stream.

(2) If the horizontal range of stream were to be 100 feet, then 100 pounds pressure would be required at the nozzle.

3. True; 4. True; 5. False; 6. True; 7. True; 8. False; 9. True; 10. False; 11. True; 12. True; 13. True; 14. True; 15. True; 16. True; 17. True; 18. True; 19. True; 20. True; 21. False.

22. . . . gas mask.
23. . . . petroleum . . . vegetable.
24. . . . slow-burning.
25. . . . practically harmless.
26. . . . 1¼-inch.

Chief Pope, Boston, Dined

Chief Samuel J. Pope, recently appointed head of the Boston, Mass., Fire Department, was tendered a complimentary dinner at the Hotel Bradford in Boston, on the evening of December 29. About seven hundred persons attended.

Fire Commissioner Edward F. McLaughlin was Honorary Chairman of the committee and Daniel J. Looney was Executive Chairman. Frederick R. Sullivan, Chairman of the Boston School committee, served as toastmaster. The affair was held under the auspices of the Officers' Club and the Russell Club, of the Boston Fire Department, assisted by the Massachusetts State Firemen's Association and the Massachusetts Permanent Firemen's Association.

The speakers included Judge Charles S. Sullivan, ex-Chief Daniel F. Sennott, Brig.-Gen. Charles F. Cole, Rev. W. Bradley Whitney, Rev. Dr. Lewis Kelleher, Fire Commissioner McLaughlin, Representative John P. Higgins, and Chief William C. Mahoney, Peabody.

Chief Pope, in replying to the many fine things that had been said of him, declared that he hoped his career in the Fire Department would justify the faith reposed in him and paid a touching tribute to the memory of his father, who as a captain in the Boston Fire Dpartment, was killed while in the performance of duty.

A vaudeville entertainment and dancing concluded the evening's festivities, which were held in the grand ballroom of the hotel.

HARRY BELKNAP.

Lansing Wins Mendelssohn Trophy

Chief Hugo R. Delfs, Lansing, Mich., was presented with the Paxton Mendelssohn Trophy, in recognition of his low fire loss. The presentation was made on the eve of the second anniversary of the Hotel Kerns fire, which claimed thirty-one lives, and the award was made at a special meeting of the Southeastern Michigan Fire Chiefs' Association. Paxton Mendelssohn, the donor, and well known fire fan, made the presentation. About one hundred Chiefs and their wives attended the meeting, at which Chief Floyd Baker of Highland Park presided.

Chief Hugo R. Delfs

Winston-Salem Awaits Ladder

The Fire Department of Winston-Salem, N. C., expects the delivery of an aerial ladder and a pumper about March 15. The order was awarded to Peter Pirsch & Company.

Richmond, Tex., Buys Pumper

Richmond, Tex., has placed an order with the Boyer Fire Apparatus Company for a 500-gallon pumper provided with a 100-gallon booster pump. The unit carries a 500-gallon Hale centrifugal pump. Delivery is expected in February.

The Complimentary Dinner to Chief Pope at the Hotel Bradford, Boston

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

EXPERIENCE WITH FIRES CAUSED BY OIL BURNERS IN HOMES

IN the early days of the fountain pen, the public suffered from pens that leaked. So, too, in the early days of the oil burners, the devices continued to discharge fuel oil even though the burner was not operating. This led to many fires and explosions.

The modern type burner has several automatic features to regulate the flow of oil, so that today much of the burner's former hazards have been eliminated.

As a precaution that the burners will be installed in the proper manner, many cities have rigid inspections.

The round table discussion in this issue is a continuation of the one in the December number.

If you have a problem that you would like to see discussed, write to the "Round Table Editor," FIRE ENGINEERING, 24 West 40th Street, New York, N. Y.

Discussion of the Question

Wm. J. Cawker, Fire Marshal, Topeka, Kan.: About twenty years ago when oil burners first came into general use in this locality many fires were experienced from these oil burners. It was almost a daily occurrence answering alarms to some dwelling house in which the fuel oil had become ignited in some manner, creating considerable damage to the building and contents.

Oil, at that time, seemed to be a popular source of fuel supply and with the ever increasing number of oil burners in use, it came to be looked upon by this department as a very serious fire hazard. After about three seasons of use, the oil burners were suddenly almost totally discontinued and in those homes where they had been given a trial, they were replaced invariably with gas-heating appliances, using natural gas, of which there is an abundant supply in this territory. For quite a number of years there were few, if any, installations of oil burners. The burning of gas seemed to be much more popular with home owners and with less attendant fire hazards, and it was difficult for the advocates of fuel oil for heating purposes to place any installations for that purpose.

The condition existed until there was a gradual increase in the price of natural gas for heating purposes and the consumers again turned their attention to the use of oil for heating purposes. However, by this time, oil burners had been developed to a point where they were more sure of operation and the fire hazards attendant upon their operation were reduced to a minimum. At the present time, and for some years past, practically all installations of oil burners have been of the automatic, electrically operated type, and it is very unusual to receive a call where any of this type has given any trouble.

The early day oil burners were almost wholly of the gravity type, the supply control depending upon an overflow chamber operating the cut-off or supply control valve which, in many instances, failed to work properly and allowed an excess amount of fuel oil to enter the burner or burners with a consequent failure of combustion. This over supply of oil, dripping and overflowing into the lower recesses of the heating unit, would become heated with a consequent giving off of gases of an explosive nature, which, in some instaces, caused explosions and in other instances merely a firing of the excess oil which created huge volumes of black, sooty, smoke permeating the entire structure from basement to garret.

At the present time all installations of oil burning equipment are regulated by city ordinances, and inspections are made of those installations at the time of placement. Due to the state of perfection of the burners now being installed, it is very unusual when any difficulties are encountered after installation, and very little attention is given to these burners by inspectors, when making building inspections.

W. G. Lutkey, Chief, Oakland, Cal.: We have had comparatively few fires from oil burners in dwellings. The main trouble lies where they were installed many years ago, prior to our existing ordinance, and in conflict therewith; also where burners are not properly cared for and the oil is allowed to leak on the floor.

We do not find oil burners a serious hazard, when properly installed, in accordance with requirements of local ordinance and in fireproof furnace room.

Most oil burner fires start from leaks and back-fires.

Every oil burner is inspected at the time of installation and a permit is required for the installation of the tank, which must be outside of the building and if over 250 gallons capacity, must be buried below the level of the burner. During inspection of apartment buildings, stores and other buildings periodically inspected, the furnace room is given careful consideration.

E. F. Dahill, Chief, New Bedford, Mass.: Our record of furnace oil burner fires for the past ten years show forty calls, with a total loss paid of $2,562.59. Most of them were small fires, and none of these fires involved a square yard of the building.

I believe furnace oil burners, properly installed and maintained, have greatly lessened the fire hazards in heating systems. Fires in such systems are usually caused by lack of proper care and negligence of operator.

Every installation of oil burners, including electric wiring, etc., must be inspected and approved by our fire prevention inspectors, before a permit is issued for operating.

Charles L. McCarthy, Chief, Worcester, Mass.: Our experience has been very good—very few fires originate from the oil burners. Most of these are caused by the overflow of the oil.

They are by no means a serious hazard—not as much of a hazard as hot ashes.

Most of the oil overflow, caused by faulty installation, starts fires.

We have a special inspector, who inspects all power oil burner installations. Range burner installations (these are the only ones incorrectly installed) are not inspected, but once each year, the storage of the oil is checked in every home in an annual inspection.

Arthur P. Spottswood, Chief, Fire Prevention Bureau, Minneapolis, Minn.: From January 1 to November 1, 1936,

HERE IS THE PROBLEM

What has been your experience with fires originating from oil burners such as are used in dwellings for heating purposes?

Have you found them to be a serious hazard?

If fires have been caused by oil burners, where did they start and from what immediate cause?

Do your inspectors check up on oil burning installations when making building inspections?

there were forty-eight fires caused by defective oil burners. On twenty-one of these fires there was a loss, and on twenty-seven there was no loss.

Our experience has been that a large part of these oil burner fires are in oil burners installed many years and placed before the present oil burner ordinance went into effect. In a majority of the oil burner fires the loss is due to the smoke damage, more than it is to actual fire caused by the oil burner. It has been our experience that a great many people change the setting of the draft or damper and in other ways readjust the oil burner after it has been installed and O.Kd. by the proper authorities.

I do not consider a recognized oil burner, which is installed according to the ordinance, as a very serious hazard.

A number of oil burner fires have been caused by the failure of either the points to reignite the burner or by some mechanical failure to stop the flow of oil. In such cases when the burner was relit by the occupant of the building, an explosion and fire ensued. We have had two or three fires in old oil burner installations, where they had an inside tank buried under the floor of the basement, with an inside test well, which was not properly vented to the outside, and which liberated vapors in the basement upon filling of tank. These vapors were later ignited by the oil burner. All of these inside test wells, however, have been eliminated and properly installed.

Our inspector, in making an inspection of a building, checks up on the oil burner installation along with all other hazards. However, we do not inspect private homes, and a large majority of our oil burner fires occur in private dwellings. Since July 1, 1935, the oil burner ordinance has been enforced by the Building Department, as they enforce all other heating ordinances. Any hazards found by our inspectors as pertains to oil burner installations are immediately ordered remedied to comply with the ordinance.

James G. Hogan, Chief, Bayonne, N. J.: We have very little or no trouble at all from fires in burners having Underwriters' Laboratory Test Label, properly installed under Fire Department supervision.

We do not consider such burners a serious hazard. Fires mostly start in oil burners that have been placed in apartment houses for house heating and cooking purposes. The chief cause is carelessness on the part of occupants.

Oil burner installations are made under Fire Department supervision and are subject to petition of installation filed with the City Clerk, returned for Fire Department inspection. First inspection is made for proper location, second, for tank installation, third inspection while work is in progress, and final inspection is made by the City Electrician, to determine proper installation of unit.

Monthly inspection of fire districts, which number twenty-eight, are made and records of each installation filed in the City Clerk's office and Fire Department Headquarters as to name of burner, capacity of tank, and name of applicant.

E. W. Gieselman, Chief, Syracuse, N. Y.: We have had a number of fires caused by oil burners in our city but nothing very serious from a fire standpoint. The smoke loss in several instances has been quite heavy. We check as to the cause of all fires, after we had several fires from oil burners. I instructed our inspector to find out the name of the burner in each instance, thinking possibly one burner was the cause, but such was not the case. We do have ordinances covering the electrical and tank installations. Inspections are made by the Bureau of Buildings before they are used. The causes we have found are short circuits, corrosion, and trouble with the needle valves.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

In placing a trussed ladder at a fire, which way do you place it, straight side toward building, or curved side toward building?

Which way do you think is the best to place it? Why?

Thomas J. Lynch, Chief, Waterbury, Conn.: Improper installation has caused most of the fires in oil burners used on kitchen ranges, both for heating and household or cooking purposes. This poor installation has allowed the escape of the oil, when the level is improper and the oil then becomes ignited and causes fire. Sometimes there is an improper damper regulation, which has been known to cause an explosion.

No, we do not class oil burners as a serious hazard, in view of the large number of such installations and the few fires from this cause. Of course, we are referring to the range burner.

In the installation of all oil burners for heating purposes only, and located in the cellar of the building, the office of the Fire Marshal has complete jurisdiction, and they can only be installed upon written application and approval by that office. The tank location is inspected, as is the tank itself. Following are the requirements: Remote control switch at the entrance to the cellar; woodwork must be properly covered and every effort made to insure protection against fire. Oil burners used for heating purposes are by no means a fire hazard in our opinion. No oil burners can be installed without a certificate of approval from the office named.

A. McMarsh, Chief, Columbia, S. C.: Since the installation of oil burners which began in the city in 1925, we have had only two fires. No damage resulted from these two fires, only a lot more smoke. I have found the oil burners to be just as safe as other stoves and heating apparatus, if properly installed. The two fires we had by oil burners, resulted from pegs being driven into the controls by someone living in the homes where these fires occurred.

When an oil burner is installed in a new building, it is up to the Building Inspector to make an inspection of same and to see that the burner has the Underwriters label and also that the unit is properly installed according to the rules and regulations governing the installation of oil burners in the city.

When an oil burner is installed in a building that is not new, it is up to the Chief of the Fire Department to see that the oil burner bears the Underwriters label and is properly installed according to the rules and regulations governing the installation of oil burners in the city.

George Haggerty, Chief, Berkeley, Cal.: We have had a few fires originating from oil burners due to the strict supervision exercised by our Fire Prevention Bureau.

Fires are caused by overflow of oil, delayed ignition, inadequate supervision or improper circulation.

Our Fire Prevention Code covers all installations of oil burning devices and is rigidly enforced. Following are the regulations:

"Section 442—Gravity Flow Fuel Oil Regulation for Residences. For residences, as defined in this Code, outside the limits of Fire Zone No. 1, it is permissable to keep, store and use for fuel purposes, any petroleum product or distillate oil having a flash point of 150 degrees or above, in any system, plant or apparatus erected or constructed in accordance with the following specifications and not otherwise, and such system, plant, device or apparatus shall be constructed and maintained as aforesaid for such purposes and in such manner and in such location as shall be deemed safe for life and property by the Fire Chief.

"a. Storage Tank Regulations.—

"The articles or substances referred to in Section 442 of this Code shall be kept or stored and used from a tank not exceeding two hundred fifty (250) gallons in capacity. Said tank shall be made of galvanized steel not less than 12 gauge, or iron if not less than equivalent of No. 12 gauge. Said tank shall be tar-coated on the outside, and shall not be placed nearer than ten feet to any building or structure or any part thereof.

"b. Tank Installation and Piping—

"The feed pipe from said tank to the burner shall not be larger than ordinary commercial ⅜-inch pipe and shall be fitted with shut-off valves, independent of the burner, at the tank and on both sides of the building walls through which it penetrates, and a heat actuated and manually operated shut-off valve shall be installed at the burner. Piping shall be protected from mechanical injury. The shut-off valve control handle outside the building wall through which the feed pipe passes, shall be no less than twelve inches above adjoining ground level and suitably labelled for identification purposes. Said tank may be installed either above or below the ground; provided, however that when it is possible to obtain a gravity flow, the tank shall be buried at least two feet underground, in which case a shut-off valve need not be required at the tank. A concrete slab, installed and constructed as provided in Section 418 of this Code, may be used in lieu of earth covering over tanks.

"Tanks may be installed above ground, provided, however, that when so installed, all sides, ends, top and bottom (bottom excepted if resting on the ground) shall be entirely encased in a concrete or brick masonry casing not less than six inches in thickness. The bottom of all tanks shall be at a height of not to exceed five feet above the plane of the burning point. All tanks shall be vented with pipe not less than one inch in diameter, extending not less than five feet above the adjoining ground level, capped with a return bend covered with a fine mesh brass net.

"Section 443—Remote Control of Oil Flow in General. Means for the remote control of the flow of oil to the burner must be provided for use in

case of emergency, and a sign indicating its purpose shall be located at the control device. A switch in the motor supplying circuit may serve this purpose for an electrically driven equipment, or a quick closing valve in the oil supply line arranged to be operated from a safe location, preferably outside of the building, may be used.

"**Section 444**—Supervision of Oil Burning Devices. All oil burning plants or other oil burning devices or equipment within the City of Berkeley, shall after the passage of this Code, be in charge of a competent person, and said person after having lighted the oil fire, and during the time said fire is burning, shall not be absent for more than twenty minutes at any time without returning to the oil fire and seeing that it is burning in a satisfactory manner. If it should be necessary for said person to be absent for a longer period than twenty minutes then he shall, before leaving the oil fire, extinguish it and shall stop and shut off all electric currents, motors, pumps, compressors or any other machinery or device used in the burning of oil for fuel, so that no oil can flow to the fire during the absence of said person. Provided, however, that this shall not apply wherever any approved automatic device is used, which will immediately and automatically shut off all electric motors and current, compressors or any other machinery or device used in the burning of oil for fuel, when the oil fire is extinguished from any cause.

"**Section 445**—Types of Oil Burning Devices Required. It shall be unlawful for any person, firm or corporation to use, or cause to be used, any oil burning device or equipment in the city of Berkeley unless such device and equipment is of an approved make and design. No gravity fed or pressure devices or appliances are permissable except as provided for in Chapter 4, Section 442 and 449 of this Code.

"**Section 446**—Rooms for Oil Burning Devices. It shall be unlawful for any person, firm or corporation to use or cause to be used any oil burning device or equipment in any building or upon any premises in the city of Berkeley, unless such oil burning device or equipment is operated in a room or portion of such buildings or premises that meets with the requirements of the Building Code for such rooms or portions of buildings used for such purpose.

"**Section 447**—Storage near Furnace Room. No combustible material shall be stored within ten feet of any furnace room door."

Frank Charlesworth, Chief, Providence, R. I.: Fires originating from oil burners used in dwelling for heating purposes have been caused by neglect in not keeping the burner clean; tampering with same by inexperienced persons. A summary of the whole situation would be—carelessness.

Oil burners are not considered a serious fire hazard if properly taken care of.

Fires caused by oil burners, start in the fire box from an accumulation of gases, leaky oil pipe, a dirty pilot and an extensive amount of carbon. Sometimes back drafts and sometimes explosions, all due to carelessness, result.

Our inspectors check up on oil burner installation and report them to the Inspector of Buildings, who has an inspector assigned wholly to oil burners.

Paul P. Heinz, Fire Marshal, New Haven, Conn.: Very few fires originate from oil burners. Generally a smudge condition exists from overflowing of oil in the combustion chamber.

Oil burners properly installed, with modern safety devices, are less hazardous than coal burners. The only hazard connected with this type of heating plant is the storage of fuel oil. If proper gauge tank is used, located at least 10 feet from flame of burner, with proper vent and fill pipe and equipped with fuseable valve at tank and burner, than there is no hazard. All trouble with oil burners are traced to poor installation work and poor grade of oil used.

Fires from oil burners originate generally in the combustion chamber and communicate to the outside floor of cellar around furnace. The fire is caused by excess oil and failure of overflowing device to function. Many times a repair man is called to service a burner and in order to give the owner heat, sometimes cuts out the safety devices. The burner continues to operate until such time that the excess oil covers the bottom of the combustion chamber and ignites. If all devices are properly working this condition would not take place.

Inspectors from the Fire Marshal's office inspect all burners once a year. This inspection checks on leaky oil pipes, open wire, defective flues and dirty burners. A check is also made to determine the working order of the stack-control switch. This is accomplished by shutting off the oil line and starting the burner. If the control is okey, the burner will shut off automatically in a half to a minute's time.

A. H. Bockelman, Chief, Galveston, Tex.: We have had several fires originating from oil burners in basements and had difficulty in extinguishing them, on account of the cramped condition of installation.

We consider them a serious hazard if not properly installed.

Such fires are caused by the steam pipes being too close to the joists and flooring and not properly covered with asbestos or other heat resisting covering.

Our inspectors check up on all oil burners.

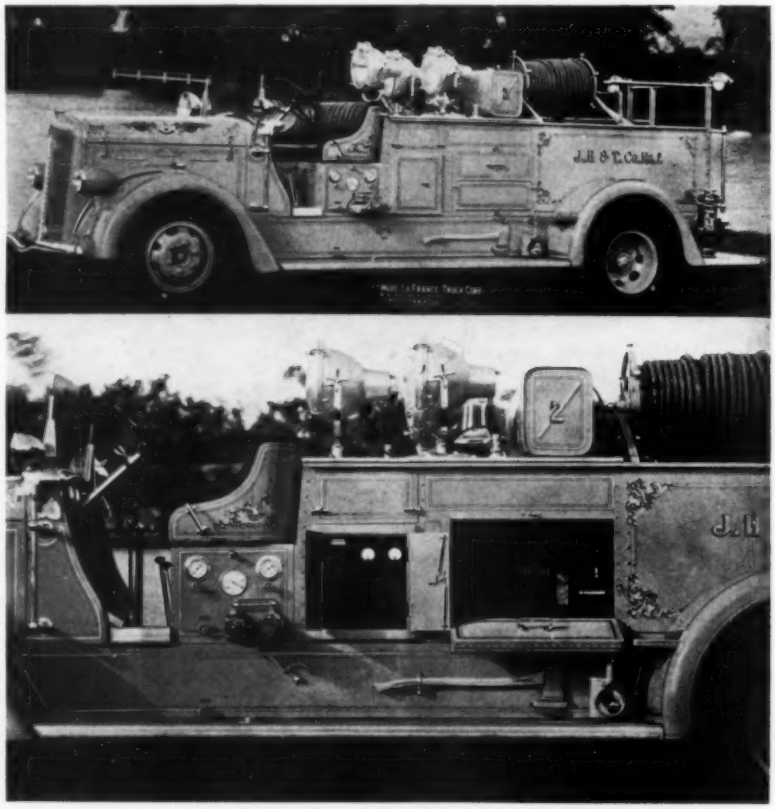
Wm. J. Lutz, Chief, Wilmington, Del.: We have approximately over 3,000 oil burners in the city, and the fires have been very few and of only minor importance. Fires caused by oil burners are as follows: 1933—7; 1934—15; 1935—18.

The fire record to date has not proven them to be a serious hazard.

Fires mostly start in the fire boxes and are caused by delayed ignition and tampering with the safety devices. Have warned many janitors and caretakers about tampering with these.

The inspectors check the oil burners when installed after the permit is taken out at the office of the Fire Bureau.

Albert Rowe, Chief, Terre Haute, Ind.: We have approximately 75 oil burners



Floodlighting Unit for Chambersburg, Pa.

A combined booster pump and floodlighting unit with a hose body, manufactured by the Ward LaFrance Truck Corporation, Elmira, N. Y., has been delivered to Chambersburg, Pa. It has a 125 h.p. engine, 2 k.w. 110-volt generator, three 500-watt floodlights of which two are portable, a 200-gallon booster pump, a 150-gallon booster tank and a hose body. The pump drive and generator drive are so arranged that both can be operated at the same time. There are two enclosed cable reels, one on each side, each with three feet of cable. All wiring is waterproof, with waterproof connections. A similar unit is being built for Great Neck, N. Y.

for heating purposes in our city, and our record does not show where they have given any serious trouble. What little trouble we have had has been with the thermostat. The installation of fuel oil tanks for these burners are made in accordance with the regulations of the National Board; a permit from this office to install the burners is required.

J. E. Parrish, Chief, San Diego, Cal.: Fire originating from oil burners usually spreads rapidly due to breaking of oil supply lines and to proximity of storage tanks near building or in the house. Blazing oil adds to spread of fire.

If no check-up is made on burners, method of installation, use of automatic safety devices, etc., the burners are a definite hazard.

Fires usually start from oil overflowing in burner, from oil supply, lack of safety devices to shut off flow of oil, in event of failure of burner to consume all oil directed to it, and because of improper installations.

C. M. Johnson, Knoxville, Tenn.: Our experience with this type of heating equipment is rather limited, due to the fact that there are not many such installations in this city. In my opinion, when properly installed, there is not an excessive hazard attached to this type of device.

The fires we have had in connection with oil burners, have originated at the burner, and seem to have been caused by an excessive flow of oil, due, in my opinion, to faulty installation.

I have had members of the Fire Prevention Bureau read material available on oil burners and installations. I also believe if more care was given to making installations, and to the place of storage tanks for oil, it would result in fewer fires from this particular source.

G. B. Goff, Chief, Oklahoma City, Okla.: There have been very few fire alarms resulting from oil burners used for heating and very little loss resulting from them.

Fire is usually caused by overflow of oil into the basin under or on the floor, under the burner and then igniting later from the burner.

W. S. Knight, Chief, Salt Lake City, Utah: We had a few oil burner installations some ten years ago, but these later were removed in favor of the natural gas for fuel.

We have not had any trouble with the oil burners, from a fire hazard standpoint. I do know of cases where the feed line or nozzle became clogged up and naturally the fire would go out. Later, for some reason or other the obstruction would be removed and the oil would continue to flow—messing up the basement floor.

We do have some trouble with people trying to burn motor oil in heating stoves, contrary to city ordinances in this city.

John Krusenblaut, Inspector, Louisville, Ky.: We have had a few alarms caused by the spray failing to work properly. This condition will cause a great deal of smoke and eventually a fire. However, we have had very little trouble with the approved types.

Recently, a makeshift oil burner caused a fire here in the city. The burner was not equipped with an automatic shut off. Something in the oil line obstructed the regular flow of oil and consequently the fire was burning very low. When the line cleared, the supply of oil was too great for the fire and the oil ran over the floor and the entire room was on fire when discovered.

Peter C. Ward, Fire Warden, Duluth, Minn.: Since the adoption in 1933 of an ordinance regulating oil burners and installations, we have had three fire calls, due to minor faults in such appliances, but no fire loss resulted. Our inspectors check up on oil burning installations when making building inspections.

Harry J. Brown, Chief, Reading, Pa.: The fires originating from oil burners have been very small. The worst damage has been the black smudge, which ruins the interior of the building.

The up-to-date oil burner, I have found, is not a serious hazard; the makeshift ones are, however, a hazard.

Fires from oil burners have been caused by the burner not being serviced properly and also by using an inferior grade of oil.

In 1931, there were thirty-two oil burner fires. Due to fire prevention activities, this number has been reduced, until today we have very few fires from this source.

Wm. Freeh, Chief, South Bend, Ind.: Fire originating from oil burners in our city has been at the lowest possible ratio, especially in recent years. The immediate cause here has been mechanical, an increase in the oil pressure, thereby overflowing and extinguishing the flame with serious smoke damage resulting.

Herman Steinfurth, Chief, Youngstown, Ohio: We have had numerous fires usually caused by leaks in feed pipes, which caused oil to leak in furnace and ignite the surplus oil, that leaked out without being properly ignited. Summing this up, the ignition system is apparently the trouble.

We have had some bad fires, which were hard to get at, due to basements being filled with dense smoke. Our inspectors check up on all oil burners in business places, but not in private houses, due to the fact that we are not informed as to where they were installed.

Fire Department, Hoboken, N. J.: We have not, as yet, had a real fire caused by an oil burner, as all installations are under the supervision of the Fire Department. We have had a few calls where they allowed oil to accumulate around burner through neglect, no fault of the burner, however. Sometime ago we were called out to an alarm. On arriving we found the whole front of the store blown out. Upon investigation, we found they had a spark ignition type burner. The janitor threw on the switch which was supposed to do three things, start the gas, the oil and ignition. After about five minutes it exploted and blew out the front of the store. On investigating I fould the oil had accumulated around the burner.

G. Rehm, Chief, Mobile, Ala.: We have had some very bad experience with oil burner fires and believe them to be a serious haxard. Fires originating from oil burners are caused by leaks, overflowing of oil and carelessness. Our inspectors check up on oil burning installations when making building inspections.

T. R. Hartnett, Chief, Racine, Wis.: We have had about eighteen fires in the last two years where the oil ran over and caught fire, doing a little smoke damage. Fires in oil burners start from the bottom of the pit.

E. C. Daunter, Chief, Jackson, Mich.: We have no trouble with oil burners, when properly installed. We had two fires caused by oil in the pit which had leaked there. No damage, however. We require a permit before installation of oil burner and we supervise the installation.

J. T. Sullivan, Chief, El Paso, Tex.: Oil burners are economical but dangerous, and are a serious hazard, if not installed properly. The uncontrolled gravity feed causes fires. We have very rigid inspections.

J. Frank Van Atta, Chief, Kalamazoo, Mich.: Oil burners are not a serious hazard, if they are of the approved type and kept in proper condition. Fires are caused by the pilot light going out, followed by the overflowing of the oils. Such fires leave the interior walls and furnishings covered with a black greasy coating, causing a heavy loss.

A permit is given by the Department of Buildings to owners of oil burners. Inspections are made both by a representative of that department and by one from the Fire Department.

George Boughner, Chief, Grand Rapids, Mich.: We have no particular trouble with oil burners. Flooding of the oil, generally from the older type, caused fires. We have no trouble with the improved burner. All installations are inspected at the time the work is completed. We have an ordinance which states that it is necessary to have a permit and license fee before work is started.

Grover Frock, Chief, Springfield, Ohio: We have had no fire from modern oil burners so far, but we have had several fires from home-made ones and particularly from the use of crank case oil in home-made contraptions. This type has been eliminated through order and education.

We have been checking oil burners in fraternity houses in our local college and business houses, but not in private houses. This is important, as in one case we found that the outside oil tank was leaking and the basement was covered with oil two inches deep.

New Hampshire Chiefs Meet in Concord

Chief Ralph S. Goodrich, Epping, N. H., presided at the meeting of the New Hampshire Fire Chiefs' Club which was held in the Eagle Hotel in Concord on December 9. Thirty-five members were present at the luncheon which preceded the meeting. A report was made by the Committee on New Fire Prevention Legislation.

Chief Charles L. McCarthy, Worcester, Mass., President of the Fire Chiefs' Club of Massachusetts, explained the new contributory pension in the Bay State.

HARRY BELKNAP.

IRVINGTON HAS EMERGENCY TRUCK FOR POLICE AND FIRE SERVICE CALLS

After Study of Local Cases and Inspection of Apparatus in Other Cities, Town Decides to Place Emergency Equipment on One Apparatus Unit

THE Irvington Fire Department recently put into service a combination emergency truck which will answer both Fire and Police emergency calls. The design of this truck and the selection of equipment carried have been decided only after a thorough study of past fire records, police emergency records, the design and usage of similar equipment in numerous other cities, and the new types of hazards and future emergencies which would need to be met.

Much of the equipment on this new emergency truck has been in the department before, but, in the past, has been scattered on various pieces of apparatus.

Special Equipment Not Always Available

In 1928 the department, realizing the value of lighting at night fires, acquired a special floodlighting truck. This was on a light truck chassis and the equipment carried consisted of a 2 KW generator and a number of floodlights. In getting this unit, it was planned that at night fires where light was needed, the light truck would be sent for on the second alarm. However, in practice it was found that by the time a pressing need for light was evident, all men were needed to fight the fire and there was no one to send back for the lighting truck.

In 1935, realizing that a lighting unit was of no value unless it was on the job, the generator and lights were installed on a hose truck that answered all alarms. In the first two months after this change records showed that the lighting equipment was used a total of 57 hours on 30 different fires.

Solution in Concentration on Special Emergency Truck

This experience with lighting equipment was paralleled in various instances with other equipment needed for only occasional emergencies—that is, at the particular time when such equipment could be of the most value, it was not always readily available.

Consideration of these records indicated that the correct solution lay in concentrating all such special emergency equipment on a special emergency truck so that they could always be quickly and readily available.

With the cooperation of Commissioner Edward D. Ballantine, past records of actual emergency cases were studied and emergency trucks of other cities inspected.

Although the primary use of this truck was not to be for pumping service, there was a need for reserve pumping equipment; so it was decided that the truck should be equipped with a 750-gallon per minute pump. The truck selected was one with 182-inch wheelbase and 96-inch body width. The engine develops 170 H.P. Besides the 750-gallon pump, the truck is also equipped with one 35-foot 3-section extension ladder, one 24-foot 2-section folding ladder and two 14-foot Pompier ladders.

Irvington, N. J., Emergency Squad Apparatus

Floodlighting Equipment

For floodlighting equipment, in addition to the 2 KW generator which has been transferred to this truck, there has also been added a 1¼-KW Homelite portable generator. The portable generator provides a flexibility in the use of lighting equipment which cannot be provided by any generator permanently mounted on the truck. It can be carried to remote parts of the fire grounds where light may be needed, or it can be left to provide light for salvage or clean-up operations while the truck can go back to be available for other calls. The generator lights can be transferred to another truck if needed at another location.

For use with the two generators, the truck carries two 1,000-watt floodlights, two 500-watt floodlights and also two 200-watt vapor proof hand lights for use inside a building. One thousand feet of No. 12 cable is carried, 600 feet of it on reels and the balance in coils.

Other Equipment on the Truck

The apparatus carries:

Hard and soft Suction hose
500 feet 2½-inch hose
65 feet 1-inch leader hose
Nozzles and tips
CO_2, foamite, soda and acid and carbon tetrachloride extinguishers
Salvage covers
Portable burning outfit, capable of burning 20 feet of ¾-inch steel
Two inhalators with oxygen tanks
Extra 100 cu. ft. oxygen tank
Four ½-hour self-contained masks
Six all-service masks
Two sets rubber coveralls for ammonia jobs.
Complete first aid equipment, including stretchers, jacks, axes, ropes, tools, etc.

The equipment carried also includes complete police emergency equipment such as tear gas guns, machine guns, etc. A camera is included for recording evidence in arson cases and also for taking pictures which are later used for firemanic education.

Can Be Converted Into Ambulance

The truck is so designed that, if necessary, it can be converted into an ambulance to carry four persons. It is also equipped with a radio receiver tuned to receive police calls.

While every fireman and policeman in Irvington is trained in First Aid and has a first grade certificate from the American Red Cross, advanced instruction was given to those who man this emergency truck. This special instruction has given them a thorough knowledge of special hazards such as that present in various chemical plants, in refrigeration plants, and in connection with special industrial machinery. The men are also required to be thoroughly familiar with each of the 257 pieces of special equipment carried on the truck.

Two police officers ride this unit to all alarms. At the scene of the fire, the police handle the regular police duties. In addition, they are specially trained in the fundamentals of fire fighting procedure and in detecting arson.

CORRESPONDENCE

Need for Young Lecturers

To the Editor:

Most Fire Departments are neglecting a very important part of their public relations work—talks to the public by Fire Department officers.

It has been the rule to assign some of the most experienced officers to this work, but such men while versed in subject matter, do not have a good grammatical background.

It has been brought to my attention that these officers are being ridiculed by the students whom they address. The children are taught the use of proper words in good grammatical construction. They are also taught that all intelligent men speak correctly. Therefore, they look upon the department lecturers as men who are far from intelligent.

Fire Departments should send some of their younger men to public speaking courses. Then these men should be coached in fire prevention talks, and after they seem proficient, they may be

sent out to the schools. Much harm is being done by the older method.

Yours truly,
OTIS SMITH,
Baltimore, Md.

* * *

Water for Tannic Acid Spray

To the Editor:

In the December issue, I noticed H. T. A. asked a question about the use of well water in tannic acid spray outfits. We have one in this department and we, too, are in the cold climate.

The possibility of distilled water freezing came to my mind when this equipment was first purchased so I had a container made for the box. This container was made from the same material used in the construction of ice cream shipping containers. I was informed by the firm making these that it would keep the water from freezing for at least twelve hours in the severest of weather. The water being warm while in the station, is not very apt to freeze in one of these containers and in this way we can carry our supply of water with a reasonable degree of certainty of having it available when needed.

I thought I would give you this information as it may help solve his problem.

Yours very truly,
R. J. VAN FLEET,
Chief, Hastings, Neb.

* * *

To the Editor:

In the December issue of "FIRE ENGINEERING" the question of carrying distilled water for use with tannic acid in the winter was the subject of an item on Page 573.

My answer to that question would be to purchase a thermos bottle for this purpose and feel assured that freezing will not occur. I might say that the apparatus manufacturers could improve their trucks if they placed insulated cabinets or holders for extinguishers on apparatus. Booster tanks can be protected either by insulating or running exhaust pipe through them. The same insulation may be advised for booster pumps and all connections containing water. Rock or mineral wool packed between the walls of casing and covers of extinguisher holders and likewise around piping will prevent freezing at below zero temperatures.

Very truly yours,
E. V. STONE,
Chief, Ludlow, Mass.

May Outlaw Fireworks

It appears to be a foregone conclusion that fireworks will be outlawed by the North Carolina General Assembly, as a result of aroused public opinion over the Christmas eve tragedy in Asheville, N. C. In this accident two lives were lost and a number of persons injured, when a fireworks store blew up and caused a fire that gave the Asheville Fire Department considerable trouble to avert a conflagration that would have razed the business district.

An ordinance reviving the old law, which prohibited the sale of fireworks within the city limits of Asheville is being considered. Opinion from over the state is that an air-tight law against fireworks will be passed when the General Assembly gets around to the Asheville tragedy and considers the several proposals that are being formulated by the lawmakers from the western section of North Carolina.

There is a law in Transylvania County prohibiting the sale and shooting of fireworks, but it has not been strictly enforced for the past number of years, and while there have been no licensed dealers in the county, "bootlegging" crackers has been a rather flourishing business for several years, and by common consent, the shooting of fireworks has been allowed on a small scale during holiday seasons.

It is expected that the Brevard board of aldermen will take the matter up at their next meeting, and that officers will be instructed to strictly enforce the law.

It is pointed out that ordinarily, the practice of shooting firecrackers is a harmless pastime, indulged in by both young and old, but the catastrophe in Asheville Christmas eve has revived sentiment against fireworks of any kind.

D. G. SPENCER.

I. A. F. C. Officers Visit Boston

Chief Robert A. Bogan, of Baton Rouge, La., President of the International Association of Fire Chiefs, on December 10 visited Boston, Mass., accompanied by Chief John Towey, of Newark, N. J., Past-President; Chief Peter Steinkellner, Milwaukee, Wis.; Chief William Q. Dowling, Jacksonville, Fla.; and Chief J. Ray Roe, Abilene, Texas.

A dinner was given in the Parker House in honor of the visiting Chiefs, who were greeted by Chief Samuel J. Pope, of the Boston Fire Department. The banquet was attended by the five visiting Chiefs and by Chief Daniel B. Tierney, Arlington, Mass., First Vice-President; International Association of Fire Chiefs; Chief Joseph W. Randlette, Richmond, Me., First Vice-President, New England Association of Fire Chiefs; Chief John W. O'Hearn, Watertown, Mass., Secretary-Treasurer, New England Association of Fire Chiefs; Chief Selden R. Allen, Brookline, Past-President, I.A.F.C.; Chief William C. Mahoney, Peabody, Mass.; James E. Moloy, District Forest Warden, Woburn, Mass.; Ex-Chief Daniel F. Sennott, Boston; John Scully, of the American Fire Equipment Company; Chief Charles H. French, Manchester, N. H., Past-President, New England association; Charles "Sandy" Chapman, of the B. F. Goodrich Rubber Co.; Capt. Richard Salamoni, Needham Fire Department, and Larry Donovan, editor of the "Among the Firemen" column of the Boston Globe.

On the following day the visiting Chiefs were taken on a visit to the Boston Fire Alarm Headquarters, to fire houses in Brookline, Arlington, and Watertown, and to the historic points of interest in Lexington and Concord.

HARRY BELKNAP.

Chicago Launches Fireboat

Mayor Kelley and a number of city officials of Chicago, Ill., journeyed to Bay City, Mich., to attend the launching of the "Fred A. Busse," the city's new fireboat.

It is said that the boat is the largest diesel fireboat in the world. It is being constructed at a cost of $134,000. After the boat is outfitted and has undergone extensive tests, it will replace the "Graeme Stewart," a boat twenty-nine years old.

Loses Fight for Title

William S. Taggart, ranking officer of the Asbury Park, N. J., Fire Department, lost his fight in the Supreme Court to regain his title as Chief.

His title was changed from Chief to Captain and Acting Chief by the city manager form of government. His salary was not changed and neither his position as ranking officer. Although no saving resulted, the city states that the change will bring about future economies. Capt. Taggart stated that the change was for purely political reasons, but the court ruled that the action of the city was proper.

American Fire Hose Tested in Sweden

The photograph shows Manhattan fire hose being tested under pressure at Stockholm, Sweden, as part of the annual tests. Water is being forced to the top of the town hall shown in the inset.

PIRSCH

ORIGINALITY AND EXCELLENCE IN DESIGN • PROPER

PIRSCH
HYDRO-MECHANICAL
TRACTOR DRAWN
AERIALS
HAVE BEEN SOLD TO:

Washington, D. C. (2)
Minneapolis, Minn. (3)
Memphis, Tenn. (3)
St. Paul, Minn.
Spokane, Wash.
Lawton, Okla.
Cambridge, Mass.
Melrose, Mass.
Southbridge, Mass.
Mahanoy City, Pa.
Harrisburg, Pa.
Davenport, Iowa
Winston-Salem, N. C.
Dallas, Texas
Pittsburgh, Pa.

JUNIOR and INTERMEDIATE SERVICE AERIALS:

Duluth, Minn.
Rochester, Minn.
Winona, Minn.
Moorhead, Minn.
North Arlington, N. J.
Huron, S. D.
Thompsonville, Conn.
Winsted, Conn.
Marshalltown, Iowa
Independence, Kans.
Billings, Mont.
Elgin, Ill.
Burlington, N. C.
Mt. Oliver, Pa.
Punxsutawney, Pa.
New Ulm, Minn.
Albany, Ga.
Waukegan, Ill.

THE PIRSCH AERIAL HAS SUPERIOR FEATURES

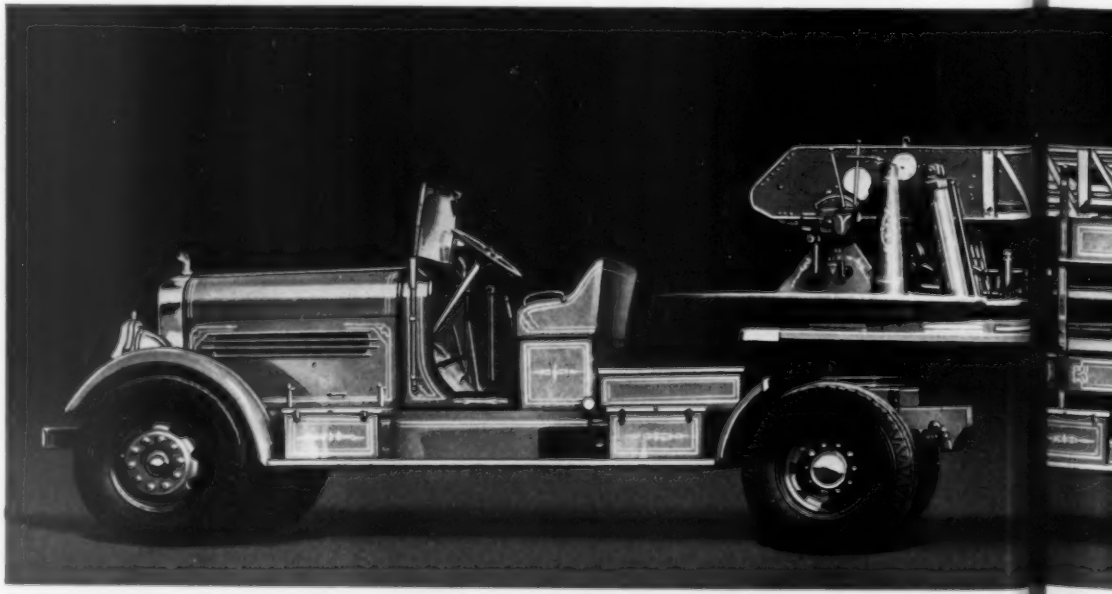
1. The All-Metal Pirsch Aerial Ladder is only 1/3 the weight of steel and 2/3 the weight of wood, but stronger than either.
2. Time tested methods of fabrication are used in the construction of the Pirsch ladder. Rivets have been used for years in tall structures, derricks, bridges, trestles, etc. That method of fabrication is considered best by authorities. The Pirsch ladder is the strongest and most durable ladder built.
3. The metal will *NOT* rust, and thereby weaken the ladder.
4. The Pirsch Hydraulic Ladder Hoist operates at *LOW, SAFE* pressures.
5. The Pirsch aerial *IS* equipped with hand or manual auxiliary mechanism for *ALL* maneuvers.
6. The Pirsch submerged tiller seat is the only improvement ever made with the thought in mind of guarding the tillerman's life.

PIRSCH DESIGNED AND BUILT AMERICA'S FIRST

•

(1) Hydraulic Aerial Ladder Hoist
(2) One Man Aerial Hoisting and Operating Mechanism
(3) Power Operated Fly Ladder
(4) Power Operated Operating Deck
(5) 100' Aerial Ladder
(6) Metal Alloy Aerial Ladder
(7) Eccentrically Operated Rear Axle Load Seat Controlled (eliminating outriggers or jacks)
(8) Modern Motor Driven Aerial Truck where in Man-Power as means of performing essential functions was eliminated

PETER PIRSCH & SONS CO
KENOSHA, WIS.



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AINTAINS THE "LEAD
N POWERED AERIALS

ER STRUCTION • OPERATING SMOOTHNESS • SALES

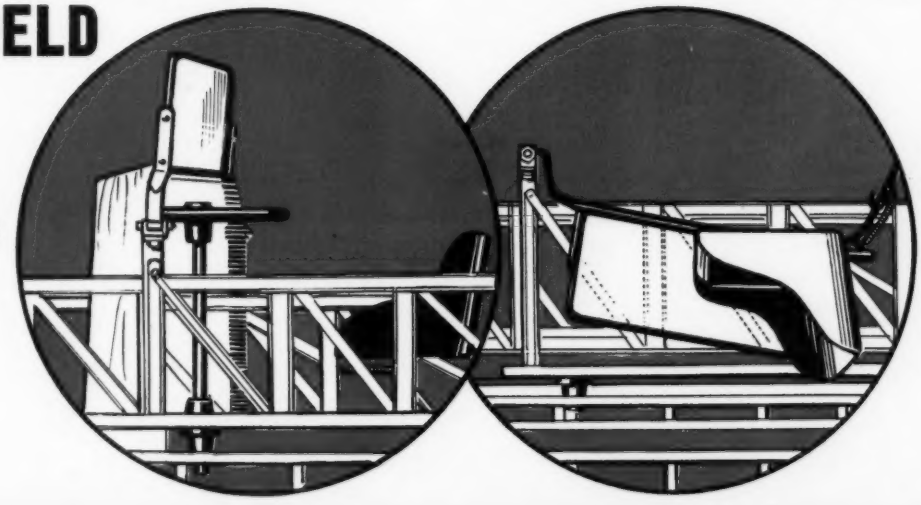
PIRSCH *Again Offers* ADDITIONAL

EXCLUSIVE FEATURES IN THE SUBMERGED TYPE

SAFETY *TILLER SEAT* AND *FOLD DOWN* TILLER

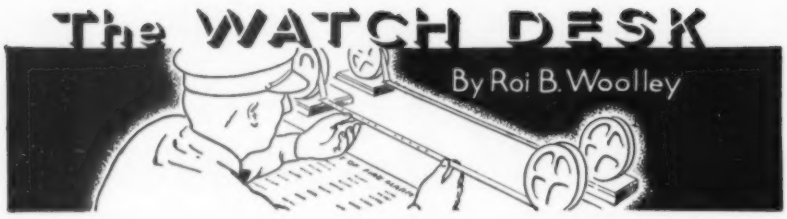
WINDSHIELD

SHOWING SEAT AND WINDSHIELD IN FIXED POSITION



SHOWING SEAT AND WINDSHIELD IN FOLDED POSITION

WITH 3 PIECE LADDER • 49 FEET OVERALL



Our inquiring reporter overhauls the firemanic news of the day.

Watermelon Extinguishers!

Jack Hicks of Durango (Cal.), driving a load of watermelons from Phoenix, Ariz., to Durango found truck afire on desert road—no water or help in sight. Resourceful Hicks got blaze under control after two-hour battle in which he pelted out fire with his watermelons.

Courteous Fireman

Cap'n Paul Babcock, demon reporter and fire control expert of Nyack (N. Y.), sends this'un (amongst a lot of others: Seems that while home of a Mrs. Cregier in that town was burning, a fireman working on first floor, heard telephone ringing. Roof having just fallen in, and hot water pouring down fire laddie's neck, he could be excused for letting phone ring. Nothing doing! He answered: "Is this Nyack 1985?" asked a feminine voice. He lifted phone and looked at the number. "Yes'm," he said, "this is 1985." "Is Mrs. Cregier in?" asked the voice. "Well, not at the moment; I doubt if she could come right now." "Well, where is the fire then?" came the reply. "The fire," replied the smoke-eater, brushing blazing plaster off his neck, "is right here in Mrs. Creiger's house."

Deponent sayeth that Mrs. Cregier thinks Nyack firemen are "just wonderful."

Christmas

Christmas fires began in November with burning of Christmas toys and charity clothing in fire that swept Goodwill Industries factory, Philadelphia. A 72-year old caretaker saved by police.

*

Frederick M. Dunn, Jr., socially prominent Philadelphian, was burned to death in lodging house fire when clothes ignited while he was wrapping Christmas parcels.

*

Mrs. John Seall, disguised as Santa Claus, had false whiskers catch fire from candle, at Christmas party in Lutheran Church, Circleville (O.), December 16.

*

Little Louise Turner, aged 3, in arms of father became so excited at arrival of Santa Claus, arriving via plane at Floyd Bennett Field (L. I.) grabbed fire alarm box, turned in alarm, bringing plenty apparatus and disgusted fire laddies.

*

Explosion of a Christmas firecracker caused death of Charles Cone aged 9, in Madison (Fla.). Practice in many Southern states of exploding fireworks on Christmas caused other casualties. In Asheville (N. C.) an explosion in downtown store December 23 killed two, injured ten, caused serious fire.

*

In Milwaukee (Wis.), father and son were seriously burned in explosion and fire while experimenting with a Christmas toy in basement, melting lead when fumes from nearby can of naphtha exploded.

*

Lexington (N. C.) firemen doused blaze aboard Southern R.R. train after smoke was seen at Linwood six miles away, seeping from car loaded with Christmas presents.

*

Clutching Christmas doll, Mary Ann Boyle, aged 5, Philadelphia, tried to clear way for Santa Claus to come down chimney; lighted newspapers; ignited dress, burned to death.

*

Tonawanda (N. Y.) solved problem of disposal of old Christmas trees by burning 'em in municipal bonfire, January 4, while children sang Christmas carols.

*

Short circuit in wiring of Christmas tree started fire which swept 7-room home in Riverton (N. J.) causing Ogden Faunce, 51 and wife, to jump from second floor balconv, critically injuring them.

News Flashes

As men were carrying dynamite into mine at Delta (Pa.) it let go, killing six, badly injuring one. . . . Brooklyn fire destroyed pet shop, killing 200 birds; dogs and monkeys escaped smoke in an adjacent store. . . . Ten tons of shotgun ammunition exploded and truck carrying them was destroyed by fire at Hamilton (O.), driver just escaping with life. . . . Mrs. T. D. Cox, Vinita (Okla.), is glad her hubby forgot to remove shells from his hunting jacket. Fire broke out at night, spread to closet. Exploding shells awakened Mrs. Cox in time to warn six roomers who escaped just before stairway fell in. . . . A convict in the Ohio State penitentiary who refused to participate in an attempted jail break foiled the attempts of other prisoners by setting fire to his bedding thus attracting attention of guards. . . . Gas escaping from a broken main killed nine, injured six in Munich, Germany. . . . James McIntyre, chauffeur for Battalion Chief Sylvio Tarana, of N. Y. F. D. attempted to rescue four-year old boy at fire and was bitten on left leg by boy's dog. . . . H. Gordon Selfridge and daughters, Princess Wiasemski and Countess de Sibour, were injured when their car collided with a London Fire Brigade engine. . . . Three hundred fire fighters and all apparatus in Brooklyn (N. Y.) fought a fire in 4-story loft building, while Deputy Chief McAleer used a telephone connection hurriedly rigged by Police and Telegraph Bureau to direct fire operations from street to roof of the big building; size of structure made job of directing the battle difficult. . . . Overturned stove set fire to Marshall stove works, Lewisburg (Tenn.), causing $200,000 loss. . . . The U. S. consulate at Naples was driven from building by basement fire, which destroyed old records. . . . Scotland Yard is investigating mysterious fire discovered in strong room of the War Office, London—important papers being burned.

Boston Spark Attended 23,000 Fires

According to Vincent Regan, Brighton (Mass.), Ben Ellis, ranking Boston Spark, has attended more than 23,000 fires all over the U. S. A. and Canada, including five major conflagrations. He has standing rule that a bonus of one, two and five dollars be paid to his employees for each third, fourth and fifth alarm that may take place in Boston. Past few weeks has been costly, with two 5-baggers, a fourth and four thirds.

Costumes Consumed, Burning Seven—Five Fatally

Seven young women of Selma (Ala.) were badly burned, five fatally, and a dozen others hurt, when carelessly tossed match ignited costume of a dancer at gay ball at Selma Country Club. Russian costumes of flannel, trimmed with cotton, flared one after another burning the seven women, lined up behind a curtain preparatory to entering ballroom. Escorts beat out flames—but too late to prevent tragic results.

Sad Fire in Firehouse

Gerald Jackson, Pittsville (Md.), lost his home and possessions in a fire. Members of the local F. D. gave him a surprise shower and the grateful Jackson left his new belongings in the firehouse, planning to remove 'em next day. Unfortunately before he could do it firehouse was discovered itself afire. Aid was rushed from Salisbury, but all of fireman Jackson's new possessions went up in smoke and in addition a fire truck was scorched. Two firemen, Stansbury Gordy and Edward Truitt, were injured while at work.

Note to contributors: If you do not read your news contribution in the next issue of FIRE ENGINEERING don't despair—if it's suitable it will ultimately find its way into print.

Editor, Watch Desk.

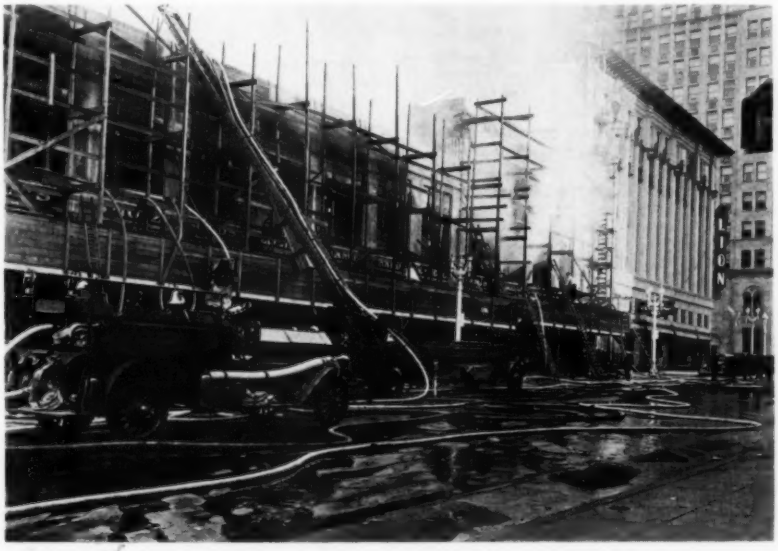
WHAT DO YOU KNOW?

The Editor of "The Watch Desk" welcomes contributions from readers of FIRE ENGINEERING that briefly give facts about interesting, odd things that have to do with fires, fire-fighting, etc. Address "Editor, Watch Desk."

WORST FIRE IN SAN DIEGO'S HISTORY DAMAGES VARIETY STORE OF LARGE AREA

Three Alarms Sounded Calling All Off-Duty Firemen—Alteration Scaffolding and Window Barricades Hamper Department

THE city of San Diego suffered the biggest fire in its history, when an early morning fire of unknown origin broke out in the Whitney & Co. building, a large 5 and 10c establishment, and later exposed the National Dollar Store building, occupied by a firm dealing in moderate priced dry goods. While early newspaper reports placed the loss at $2,000,000, the present indications are that the loss will probably be between $500,000 and $700,000.



Side of Store Where Extensive Alterations Were Being Made

The Whitney Building, one of San Diego's largest moderate priced variety stores, is a two and three story, frame, brick and hollow tile building, located in the block bounded by Broadway and "E" Street, and 5th and 6th Avenues, in the heart of downtown San Diego. The Whitney Building has a Reichel Detector system and has a divided basement, part of which is protected by automatic sprinklers. Whitney & Co. extended through from 5th to 6th Avenue and also has a Broadway entrance through the Lion Building, a 6-story structure of fireproof construction, sprinklered throughout. This part of their store was not damaged by fire, but suffered some from smoke. A new addition is being built for Whitney & Co. on the southeast corner of 6th Avenue and "E" Street, being constructed of reinforced concrete. This addition was in no way damaged.

Alterations were also being made in the Whitney Building proper at the time of the fire, and scaffolding in front of the building on the 6th Avenue side presented a handicap to firemen in their efforts to extinguish the fire. A temporary partition had also been erected inside the building, just in front of all windows on the second floor, for the purpose of keeping out prowlers during the alteration process.

The National Dollar Store Building, located near the southwest corner of the block and extending towards 5th Avenue from the rear of the 6th Avenue part of the Whitney Building, is a brick structure, three stories and basement, with automatic sprinklers in basement only.

The Fire

The fire alarm was received at 1:42 a.m. Four engine companies and one truck company responded on the first alarm. Directed by the Reichel system indicator box to the southwest section, second floor, of the main store, they found the fire under such headway that they were forced to retire from the building. The Fire Alarm office was called to transmit a second alarm, which brought three additional engine companies, the time being 1:50 a.m.

Chief J. E. Parrish and Assistant Chief G. E. Courser responded on the second alarm and took direct charge of the fire fighting. At 1:52 a.m. the third alarm was transmitted, calling five more engine companies and a truck company, and all off duty firemen.

Due to the obstructions created by the 6th Avenue scaffolding and the window barricade, firemen were hampered in their efforts to reach the fire, and it was not until the roof gave way that water streams began to be noticeably effective.

Thirty-five 2½-inch lines were laid, supplying water for twenty-eight 1⅛-inch streams, two Grant Monitor nozzles with 1½-inch tips, one MacGregor Monitor nozzle with 1¾-inch tip, one Eastman Deluge set with 1¾-inch tip and one Hart ladder pipe with 1½-inch tip. In all, 14,950 feet of 2½-inch hose were used. Lines were taken off standpipes in the Lion Building, northeast corner of 6th Avenue and Broadway and the Watts Building, southwest corner of 5th Avenue and "E" Street. Streams were played upon the fire from 5th and 6th Avenues, from roofs of adjacent buildings and from within the involved buildings themselves.

Eleven engines were used for pumping. Truck crews raised 686 feet of ladders and laid 23 salvage covers.

The fire was at its peak at about 3:30 a.m. and from that time on was brought

View of the Store After the Fire Had Been Extinguished

The fire streams were not effective until the roof had fallen. This picture shows the extensive floor area of the store.

rapidly under control. Additional alarm assignment companies began to return to their stations at 7:49 a.m., the fire having been brought under complete control, except for watch lines, about 4:45 a.m.

Water Pressure

Despite reports that water pressure in down town hydrants had failed, there never was lack of water at the fire. At the City Hall, three blocks from the fire, water pressure was indicated to have dropped from a normal of 85 pounds for that time of the morning to 25 pounds at from 3:10 a.m. to 3:30 a.m. Water Department officials supplied more pressure. About 3,000,000 gallons of water were used on the fire.

Extent of the Fire

The actual fire itself was confined to the second and third floors of the 6th Avenue Whitney store. The 5th Avenue side suffered smoke and water damage on the main floor. The second floor of this section was storeroom space and it suffered fire loss.

The fire loss was held to the second and third floors, occupied mainly as stock room area. The fire loss on the Whitney building has been settled for $53,000.

The National Dollar Store suffered fire loss on second and third floors, with smoke and water damage on the main floor and basement. This store is entirely an exposure loss.

Other Exposure Losses

In five other buildings, including the 10-story fireproof Watts Building, there will be slight fire and some water damage. The total exposure loss, with the exception of the National Dollar Store, will be very slight.

Injuries

One civilian volunteer, a sailor, suffered severe injuries, when he fell through a skylight, while assisting firemen in taking up a line of hose to a roof. One fireman received cuts on the head when a nozzle struck him. This injury was not at all serious. Other reported injuries were all of a minor nature and the men affected did not even leave work.

By William Paul Babcock

TRUSTING that all the holiday trimmings are safely burned up, we may now return to normalcy.

As has already been mentioned by other writers, the Fire Department is frequently called upon to do many odd jobs, such as removing cats from trees, taking horses out of ditches, etc. and the salvage unit of the organization is no exception. Therefore, it may be well to suggest some of the more unusual uses to which salvage covers may be put.

As many salvage companies also do first aid and rescue work, it will be found that a cover can be made into an ideal emergency dressing station with the aid of pike-poles, ceiling punches, ladders, etc. Also with the aid of these same tools, a cover may be so folded, in the form of a stretcher, that the weight of a body upon it will keep it firmly in place. Frequently on the Fourth of July rain threatens to spoil the "sets" of public pyrotechnics before the time comes to touch them off, and a salvage cover or two will prevent any such damage. We have often used covers to protect show windows when the large glass panels have been knocked out by wind storms and other accidents.

The current season is so filled with chimney fires that I feel I should suggest the use of salvage covers over open fire places before beginning the attack from above. There is very little chance that a cover will be burned by hot coals or soot. If the cover is properly placed, the hot spots will merely touch it slightly, if at all. The cover should not be permitted to rest upon the lower folds. The salvage cover, we have found, is the best means of restricting the spread of falling soot and dirty water in extinguishing chimney fires.

The Nyack Patrol has been very active lately in the role of "school-marm." A crew, under the direction of their Departmental instructor, ex-Chief Ray Ackerman, has been travelling to surrounding towns and giving practical instruction and demonstrations in the handling of salvage covers and incidental equipment, as well as in first aid practice. They have asked me to say that they'll be glad to go anywhere within driving distance upon invitation. Their twenty years' experience is worth drawing upon.

If *you* have employed salvage covers in some special and unusual ways for fire or other emergencies, won't you write me about these uses so we can, together, pass on our knowledge to others?

Chief Johnson, Knoxville, Injured

Chief O. M. Johnson, Knoxville, Tenn., was injured while answering a fire alarm. He suffered a fractured jaw bone, cuts and contusions, and lost several teeth. He was taken to the General Hospital.

Hours Cut for New York Firemen

As the first step in the establishment of the three-platoon system for members of the New York Fire Department, Commissioner McElligott has announced that the firemen will receive one day off in nine. It is expected that the system will be in operation by the end of 1939, and when it is, the firemen will work eight hours a day and will have a six-day week.

Under the temporary arrangement, the men will work ninety-six hours each ten days, with 144 hours off during that period, as compared to the previous working hour schedule of 120 hours. The men will work four nine-hour day shifts, from 9 a.m. to 6 p.m., then four 15-hour night shifts, from 6 p.m. to 9 p.m. and will have twenty-four hours off before they go back to the day shift.

Commissioner McElligott plans to appoint three hundred new firemen each two months in 1937. In order to teach these recruits, the three-month training period will be reduced to two months.

Apparatus Tested in France for Fighting Airplane Fires

A special type of fire apparatus was tested at the Le Bourget Airfield, France, for fighting fires that may develop in airplanes. The apparatus carries both tanks of compressed carbon dioxide gas which is released in the form of snow, and chemicals for foam. An old airplane containing gasoline was set ablaze, and the fire extinguished in thirty seconds. At the left, the apparatus is seen going into action. A better view of the equipment is given at the right. The long, flat funnel is for the discharge of carbon dioxide snow. The foam is ejected from the deck gun in front of the driver's seat.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Life First

To the Editor:

I am a police officer and would like to have your interpretation of the following question:

While patroling my beat at night I discovered a fire in an occupied house. Which would be the proper thing for me to do—go into the house and arouse the occupants, then go and pull an alarm; or go and pull an alarm and then arouse the occupants?

J. J. Mc.

Answer: There is only one thing that should be done in this case: immediately arouse the occupants. Human life is more valuable than property and in all fire-fighting operations receives first attention.

In a building of this type, if you wait for fire apparatus to arrive before rescue operations are started, it may be too late to accomplish them without loss of life. Further, the delay in your arousing occupants when alarm is sent in first may mean avoidable loss of life.

Stream Range

To the Editor:

In the August, 1936, issue in the "Promotional Study Course," there is a question reading "Where nozzle pressures are the same a small diameter fire stream has a.....range than a large diameter stream."

The answer in the September issue reads "Smaller". It seems to me from reading other material that the word to fill in should be "longer" or "greater."

Will you kindly explain this point?

E. K. Q.

Answer: Where the nozzle pressures on two different nozzles are the same, the larger nozzle gives the stream a greater range than does the smaller nozzle. The difference is not very large but the larger nozzle has the advantage.

To be specific, here are figures on effective reaches of fire streams:

Pressure at Nozzle	Reach of 1" Stream	Reach of 1½" Stream
20 lbs.	37	40
40 lbs.	55	66
50 lbs.	66	75
60 lbs.	67	80
80 lbs.	76	88
90 lbs.	80	91

What you probably had in mind is the use of smaller diameter nozzles on lines of hose to get greater reach of stream. For example, if you have an engine at a certain pressure pumping through a long line of hose and you find the stream has a poor range, the range can be increased by changing nozzles, putting a smaller one on. In this case you get greater reach because the nozzle pressure will be greater with a small nozzle than with a large nozzle.

However, when two nozzles of different sizes are used, but with identical pressures, the one of larger diameter will give a stream of greater range, than the smaller nozzle.

Friction in Small Diameter Lines

To the Editor:

How is friction loss on 100 feet of 1½-inch hose, figured say 100 gallons, 90 gallons, 80 gallons and less?

W. J. M.

Answer: The first step in finding friction loss in small diameter hose is to change the hose to 2½-inch. In the case of 1½-inch hose, this is changed to 2½-inch by dividing by the factor 0.074.

For example, 100 feet of 1½-inch hose is equal to 100 divided by .074 or 1,351 feet of 2½-inch hose.

Friction loss for flows of 100 gallons per minute and less in 2½-inch hose is secured by the following formula:

Friction (per 100 feet) = $2 \times Q \times Q + \frac{1}{2}Q$, where Q is the flow measured in hundreds of gallons per minute. If the flow is 100 gallons per minute, then the friction loss per 100 feet of 2½-inch hose will be:

Friction loss = $2 \times Q \times Q + \frac{1}{2}Q$ or
$= 2 \times 1 \times 1 + .5$
$= 2.5$ pounds.

The friction loss of 1,351 ft. of 2½-inch hose will be 13.51 x 2.5 or 33.8 pounds.

Other problems involving small flows are solved in the same manner.

Capacity of Hydrant

To the Editor:

I have a problem that I wish you would work out for me in regards to a hydrant that has a static pressure of 26 pounds, and would be only permitted to use one 2½-inch outlet to connect my suction hose to. Would it be possible to use a pump of 350 gallons capacity with a hose layout of 300 feet and a pipe with a ¾-inch tip? Would I get enough or sufficient water from that 2½-inch opening in the hydrant to supply the pump without making it hammer?

With the same layout would I get just as good results with a ⅞-inch tip? Or would it be possible to lay two lines of hose with smaller tips and still get sufficient water from the 2½-inch outlet on the hydrants?

W. A. B.

Answer: The ability of the hydrant to supply the 350 gallon pumpers depends entirely upon the length and size of mains feeding this hydrant. If it is a 6-inch main, and not corroded inside, and further, if the main is not more than two or three blocks long to the point where it is fed by a larger main, then you should have no trouble whatsoever in supplying either one or two lines of 2½-inch hose, equipped with ¾-inch tip.

Specifically, a ¾-inch tip at 51 pounds pressure discharges 120 gallons per minute. Two such lines would give 240 gallons per minute which would be a comparatively small draft on the hydrant, if the supply main is not badly incrusted and if it is of sufficient size.

On the other hand, if the supply main is four inches in diameter and it is badly incrusted, you may not be able to get more than one stream, and even this may be unsatisfactory.

Preventing Explosions When Welding

To the Editor:

Can carbon tetrachloride, which has been employed for inflammable oils, be used to make welding operations inside of oil containers safe? If so, how should it be applied?

P. F.

Answer: About a year ago a special committee of the American Welding Society was appointed to prepare recommendations for proper methods of cleansing containers which have held combustible solids, liquids or gases prior to the application of welding and/or gas cutting operations. The committee outlined three general methods:

1.—The inert gas method, employing nitrogen or carbon dioxide.
2.—Hot chemical cleaning method.
3.—Steaming method.

Any one of these methods is applicable in case of gasoline containers and is complete in itself but it is sometimes advisable to supplement one of the methods, such as hot chemical cleaning or steaming, by the use of inert gas, as an added safety measure.

Carbon tetrachloride has been used to some extent as sprayed into gasoline containers to render them safe for hot work, as the heavy gas tends to displace air and force it out through the vent, leaving an atmosphere so low in oxygen content as to be below the explosive limit. It is conceivable that carbon tetrachloride could be so employed by an individual, who clearly understood

what he was doing, without any undue hazard.

On the other hand, there are quite a number of variables in its use and we do not feel inclined to recommend this method of protecting tanks which have previously contained flammable vapors before welding. In addition, the heating of such chemical has some possibility of toxic effect upon the operator, although this effect may be small, unless the operator is working in a very closely confined space where ventilation is markedly poor.

WHAT'S BURNING

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of December, 1936. These figures, compiled from the telegraphic reports, are based on estimates made at the time, and are subject to later investigations and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Month Ending December 31

	Loss in Thousands of Dollars
Edwardsville, Ill.—Factory of Elder Mfg. Co., adj. property	$ 50
Chicago, Ill.—Oak Park car barns and 29 street cars	400
Sauk Center, Minn.—Five buildings on Main Street destroyed	125
Bloomingdale, Mich.—Dew Drop Inn and adj. business property	80
Clarksburg, Mass.—Bldg. housing Briggsville School	50
Charleroi, Pa.—Store of Denny Clothing Co., adj. property	50
South Boston, Mass.—Bldg. occupied by Boston Plate & Window Glass Co.	200
Manistee, Mich.—Roundhouse of Manistee & & Northeastern R. R.	125
Elma, N. Y.—Hotel owned by E. E. Luders, also adj. property	50
Lewisburg, Tenn.—Marshall Stove Works destroyed	170
Morven, N. C.—Hardison building and adj. business property	50
Johnstown, Pa.—Ferndale Borough school destroyed	50
Mahoney City, Pa.—Garage of Hill & Suender, East Bear Ridge	70
Paterson, N. J.—Plant of Hamilton Millwork Co., destroyed	400
Grandin, N. D.—Farmers Cooperative elevator destroyed	50
Worcester, Mass.—Substation of New England Power Co., adj. property	70
Chicago, Ill.—Cattle pens of Union Stockyards damaged	50
Willoughby, Ohio—Factory of Wolwin Chair Co., destroyed	65
Alamo, Tenn.—Several business establishments destroyed	80
Arcanum, Ohio—Branch whse. of Miami Valley Tobacco Co.	80
Cornwall, Ont.—Algonquin Hotel located on Stanley Island	50
Wichita Falls, Tex.—Property of Southwest Feed Mills destroyed	60
Chesterland, Ohio—Chesterland Tavern and Cottrell store	100
Ashtabula, Ohio—Cook's Arcade building destroyed	50
New London, Conn.—Hawthorne Sash & Door Co. shops destroyed	50
Randolph, Mass.—Factory of E. C. Young Co., destroyed	80
Detroit, Mich.—Lake freighter owned by Bradley Transportation Co.	60
Evansville, Ind.—Plant of Goebel Furniture Corp.	80
Galion, Ohio—Perfection Vault Co. plant damaged	400
Somerset, Pa.—People's National Bank bldg., destroyed	100
San Francisco, Cal.—Pier 4, State Terminal.	500
Cold Springs, Minn.—Store and office bldg., destroyed	50
Sullivan, Ind.—Minnehaha Coal Mine damaged	80
Lancaster, S. C.—Hotel Royal and adj. business property	80
Buffalo, N. Y.—Whse. of Cuff Packing & Provision Co., damaged	50
Milwaukee, Wis.—Foundry of Milwaukee Valve Co., destroyed	70
Whiteville, N. C.—Six buildings in business district	170
Sacramento, Cal.—Bldg. occupied by Hobrecht Lighting Fixture Co.	50
Los Angeles, Cal.—Whse. owned by L. Erenberg and M. Bloon	50
Stevensville, Mont.—Block of small business bldgs.	180
Sacramento, Cal.—W. T. Grant Store damaged	125
Mercee, Cal.—Strand Theatre and Burke Restaurant	90
Fairfield, Me.—Central Maine Power Switching Station	80
Asbury, N. J.—Asbury Granite Mills damaged	50
Los Angeles, Cal.—Plant of California Cotton Oil Corp.	180
San Francisco, Cal.—Bldgs. of F. W. Woolworth and W. T. Grant stores	250
Corcoran, Cal.—Whse. occupied by Corcoran Milling Co.	250
Kulpmont, Pa.—Wilson School bldg. destroyed	50
Clifton, N. J.—Factory of Standard Textile Products Co.	170
Wabena, Wis.—High school building destroyed	100
Loveland, Col.—Garage and machine shops containing trucks and automobiles	50
Chicago, Ill.—Traficanti Brothers' noodle plant.	50

How Not to Fight an Oil Truck Fire

Volunteer firemen, and other firemen as well, seem to have an eye for the dramatic side of fire fighting. Volunteer firemen at Clifton Park, N. Y., are no exception. When a trailer truck loaded with 5,000 gallons of gasoline was damaged, and gasoline leaking from the tank burst into flame, attempts were made to shoot bullets through the heavy metal shell of the trailer to prevent an explosion.

They did not remember that it is impossible to pierce the ⅜ or ½-inch metal plates of a tank car with anything less than a high powered rifle or machine gun. There was a danger, however, of the bullets from the guns used glancing off the rounded tanks and injuring persons nearby.

Tanks of this nature are provided with relief valves so that when the pressure within the tank reached a preset amount, the valve opens and releases the pent up gases. As long as the valve does not open, the only gasoline that can discharge on the highway is that which may flow through a rupture of the plate seams. Even if the marksmen had been successful, the hazard would have been increased instead of being decreased. More gasoline would have emptied on the roadway to flow away as a burning stream.

Fireman Trying to Pierce Tank With Rifle Bullet

Patchogue Has Light Truck

A new floodlighting truck has been placed in service by Patchogue, N. Y.

In addition to the floodlighting equipment, the truck carries four gas masks, wire cutters, rubber gloves and similar tools, and several fifty-pound containers of foam powder.

Chief J. W. McCarthy Honored

Chief John W. McCarthy, Corning, N. Y., and the Police Chief of the city were paid glowing tributes by the people of Corning at a testimonial dinner held at the Elks Club. Chief McCarthy has been head of the Fire Department for twenty-eight years.

One of the most outstanding talks was made by Lieut. Arthur W. Espey, of the Elmira Fire Department. His father, Chief John Espey, of Elmira, has been a close friend of Chief McCarthy for twenty-five years. Chief William Shoemaker, Canandaigua, told of the high regard that Chief McCarthy is held in by the New York State Fire Chiefs' Association.

LIN-LINED FIRE HOSE is Compact!

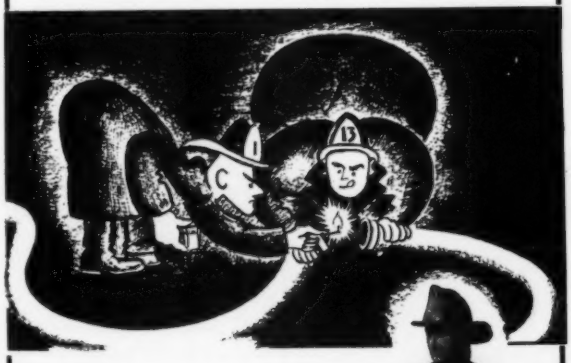
LIN-LINED HOSE is also lighter than ordinary fire hose. As a result, you can carry much more hose in your present wagons and handle it faster and easier if you use LIN-LINED, the new and stronger fire hose that has a rotproof linen lining instead of the old-fashioned rubber lining. Try it! Just specify LIN-LINED HOSE when you order.

LIN-LINED Trademark Reg.

Dealers Wanted

AMERICAN FIRE HOSE CO.
PASSAIC, N. J.

WHAT! COUPLE A HOSE WITH A BOX OF MATCHES!



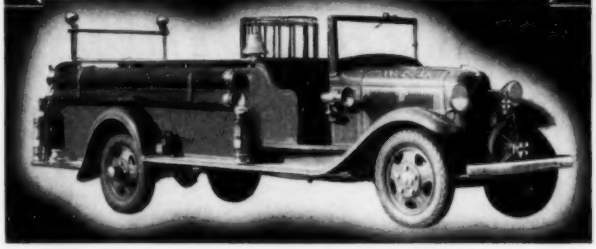
YOUR men will work faster—and more effectively—at night fires if there's a Homelite portable flood-lighting plant on your squad. For this compact, rugged, yet low-cost plant generates 1250 watts—enough to provide *brilliant* flood-lighting over large areas.

Furthermore, the Homelite is *really* portable. The complete unit, including built-in gasoline engine weighs only 89 pounds. It is carried easily by one man, is set up quickly any place—no long cables are necessary. And it is 100% dependable. It starts instantly in any weather—needs no further attention, for its air-cooled engine can't freeze, flood or overheat.

Send for bulletin.

HOMELITE CORPORATION
301 RIVERDALE AVENUE, PORT CHESTER, N. Y., U.

BARTON FIRE PUMPS



PLAN TO INCLUDE BETTER PROTECTION IN YOUR 1937 BUDGET

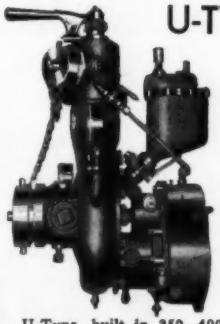
Now is the time when most cities, towns and villages are considering 1937 expenditures—making up annual budgets. An ideal time to get money appropriated for better fire apparatus.

And thousands of Chiefs have found it easy to sell the "powers that be" on Barton Fire Pumps. For Barton Pumps enable you to have the FINEST, MOST DEPENDABLE of fire-pumping equipment, YET SAVE YOUR COMMUNITY HUNDREDS OF DOLLARS IN TOTAL FIRST COST.

COST IS LOW

First, because of simplified design, a Barton Centrifugal Pump costs MUCH LESS than other type apparatus. Second, because of Front-Mounting, a special expensive fire truck is NOT REQUIRED. Any size Barton Pump can be used on a standard truck and completely installed WITHOUT A SINGLE CHASSIS CHANGE—total cost but a few dollars for labor.

How can we best help you present this wonderful economy story to your community? Mail Coupon below and we will send you literature explaining Barton Pumps thoroughly. Or would you prefer to have our nearest representative call and talk to your people? No obligation, of course.



U-Type, built in 350, 400, 500 and 600-gallon sizes.

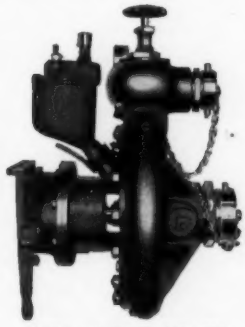
U-TYPE —*Gear Drive*

Shown at left is a Barton U-Type Fire Pump, Complete and ready for Front-Mounting. Every U-Type Pump is regularly equipped with BUILT-IN GEAR DRIVE which permits truck motor to operate at approximately ONE-HALF pump speed. With pump wide open and discharging against 250 pounds pressure, the motor loafs along under no strain. All sizes UNDERWRITERS' TESTED—all automatically primed. The finest centrifugal fire pumps on the market.

F-TYPE—*Direct Drive—Low Price*

A recent development for towns and villages which require relatively large capacity pumpers but have only limited amount of money available. They incorporate every U-Type feature and refinement except Gear Drive. All sizes UNDERWRITERS' TESTED — all automatically primed.

Also smaller Barton Fire Pumps, both centrifugal and rotary, AT STILL LOWER PRICES.



F-Type, built in 400, 500 and 600-gallon sizes.

MAIL COUPON

AMERICAN STEAM PUMP COMPANY
Battle Creek, Michigan

Please send complete information as checked below:

- ☐ U-Type Fire Pumps, Bulletin 75
- ☐ F-Type Fire Pumps, Bulletin 95
- ☐ Smaller Fire Pumps at still Lower Prices
- ☐ Have your nearest representative call.

NAME .....

ADDRESS .....

SAVE WITH

Shuredry

SALVAGE · COVERS

Fully 75% of the fire loss is due to water damage. Shuredry Salvage Covers are an essential part of the equipment of progressive Departments everywhere. Leading Chiefs endorse Shuredry. You can better your record, too, by using these covers.
Shuredry Covers lead because they weigh less, cost less, will not crack when folded . . . give better protection. *Samples and prices gladly furnished. Ask for them today.*

Reduce

WATER DAMAGE · INSURANCE RATES

Fulton Bag & Cotton Mills
Manufacturers Since 1870
ATLANTA ST. LOUIS DALLAS
MINNEAPOLIS BROOKLYN NEW ORLEANS KANSAS CITY, KAN.

You can't beat
BODY-GUARD
for cold weather
PROTECTION!

Every fire chief who cares for his men's health should be glad to buy or recommend the purchase of a Body-Guard Bunker Suit. Thousands of firemen in all parts of the United States have been wearing them daily for over 15 years. These garments will keep you dry and comfortable at every fire. Any fireman can have our catalog by writing for it.

BODY-GUARD BUNKER SUITS

are actually health insurance — they last for years — they cost but little.

BODY-GUARD MANUFACTURING CO.
ST. JOSEPH, MISSOURI

Carried in stock by - - - - CAIRNS & BRO.
444 Lafayette Street, New York — Eastern Distributors

Highly Endorsed by Fire Chiefs Everywhere!

Chief Henry of Lexington, Ky. writes:

"The 'Fire Chief's Handbook' is the work of one of vast experience. Every fireman should have a copy for study and reference."

Chief Gambrell of Dallas, Texas writes:

"It is very instructive and helpful. We find this book very convenient to refer to in our school work."

THE **FIRE CHIEF'S HANDBOOK**

By FRED SHEPPERD

In Collaboration with the EDUCATIONAL COMMITTEE *of the* INTERNATIONAL ASSOCIATION OF FIRE CHIEFS

THERE have been books on fire-fighting, but never anything so complete and authoritative as the "Fire Chief's Handbook." This book, a gold-mine of practical, helpful data, gives a reliable, up-to-the-minute answer to almost every question that might come up in modern fire-fighting practice.

For progressive fire chiefs, interested in up-to-date fire fighting methods, the "Fire Chief's Handbook" will be a mighty valuable reference guide. It gives to ambitious fire department officers and men, in plain, understandable form, information that should prove extremely helpful in preparing for promotional examinations. In fact, it is a book every fighter needs and ought to have. *The Edition is Limited—Better Order Your Copy Today.*

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$4.00 *per copy postpaid*

If the book isn't what you expected, return it within 5 days and your money will gladly be refunded.

Here are some of the subjects covered:

FIRE DEPARTMENT TOOLS AND EQUIPMENT
MOTOR FIRE APPARATUS PUMPS
FIRE EXTINGUISHERS AND THEIR USE
FIRE STREAMS
FIRE-FIGHTING METHODS
FIRE STATION DESIGN
TRAINING OF FIREMEN
SALVAGE OPERATIONS
BUILDING INSPECTION
VENTILATION AT FIRES
CARE OF FIRE HOSE
CHEMISTRY OF FIRE
HEAT AND ITS ACTION
DRILL TOWERS
DRILLS AND EVOLUTIONS
FORCIBLE ENTRY
EXPOSURES
STANDPIPE WORK AT FIRES

—and Many Other Things

Fire Prevention Contest Winners Announced

Reports submitted to T. Alfred Fleming, Director of Conservation, National Board of Fire Underwriters, in the contest based on activities of various departments during Fire Prevention Week, have been judged by a committee, consisting of the following:

F. W. Koeckert, President, National Board of Fire Underwriters and United States Manager, Commercial Union Assurance Company.

Dr. C. H. Watson, President, National Safety Council, and Medical Director, Benefit and Medical Department, American Telegraph and Telephone Company.

Fred Shepperd, representing R. A. Bogan, President, International Association of Fire Chiefs, and Chief, Baton Rouge, La., Fire Department.

The largest number of reports submitted by any state or province in America were submitted by Quebec. The reports showed that during the period from September 27 to October 17 there were 371 fireless weeks and 84 cities had a weekly fire loss of less than $25. The winning cities in each state, and those receiving honorable mention, follow:

State	Winning City	City Receiving Honorable Mention
Alabama	Birmingham—1st	Gadsden
	Tuscaloosa—2nd	
Alaska	Ketchikan—1st	
Arizona	Prescott—1st	
	Phoenix—2nd	
Arkansas	Pine Bluff—1st	
California	Los Angeles—1st	Oakland
	San Francisco—2nd	Burbank
		Santa Ana
		Fresno
		Pasadena
		Long Beach
		San Rafael
Colorado	Fort Collins—1st	Denver
	Colo. Springs—2nd	Pueblo
Conn.	Hartford—1st	Waterbury
	New Haven—2nd	
Delaware	Wilmington—1st	
Florida	Cocoa—1st	
	New Smyrna—2nd	
Georgia	Atlanta—1st	
	Savannah—2nd	
Hawaii	Hilo—1st	
Idaho	Boise—1st	Nampa
	Lewiston—2nd	
Illinois	Wood River—1st	Freeport
	Chicago—2nd } Tied	Joliet
	W. Spgs—2nd } Tied	Champaign
Indiana	Fort Wayne—1st	Lafayette
	Indianapolis—2nd	Terre Haute
		South Bend
		Anderson
		La Porte
		Marion
Iowa	Burlington—1st	Marshalltown
	Dubuque—2nd	
Kansas	Wichita—1st	Hutchinson
	Newton—2nd	Kansas City
		Marion
		Topeka
Kentucky	Louisville—1st	Catlettsburg
	Newport—2nd	Glasgow
Louisiana	Lafayette—1st	Crowley
	Baton Rouge—2nd	New Orleans
Maine	Portland—1st	
Maryland	Salisbury—1st	
	Baltimore—2nd	
Mass.	Fitchburg—1st	Lynn
	Malden—2nd	Springfield
Michigan	Jackson—1st	Fremont
	Grand Rapids—2nd	Muskegon
Minnesota	St. Paul—1st	Faribault
	Minneapolis—2nd	Hibbing
Mississippi	Jackson—1st	
Missouri	St. Louis—1st	Kansas City
	Chillicothe—2nd	
Montana	Great Falls—1st	
	Butte—2nd	
Nebraska	Kearney—1st	
	Omaha—2nd	
Nevada	Reno—Hon. Mention	
New Hamp	Keene—1st	
	Manchester—2nd	
New Jersey	Jersey City—1st	Bloomfield
	Newark —2nd } Tied	Camden
	Ridgew'd—2nd } Tied	North Bergen
		West Orange
N. Mexico	Carlsbad—1st	
	Roswell—2nd	
New York	Newburgh—1st	Rochester
	Geneva—2nd	Syracuse
		Watertown
		Schenectady
		Utica
		Rome
N. Carolina	Asheville—1st	Greensboro
	Rocky Mount—2nd	High Point
N. Dakota	Valley City—1st	
Ohio	Cincinnati—1st	Elyria
	Lakewood—2nd	Dayton
		Cleveland Hgts.
		Toledo
		Cleveland
		Massillon
		Columbus
Oklahoma	Stillwater—1st	Blackwell
	Woodward—2nd	Muskogee
Oregon	Portland—1st	
	Albany—2nd	
Penns.	Philadelphia—1st	Scranton
	York—2nd	Coatesville
		Bethlehem
		Jessup
Rhode Island	Providence—1st	
	Pawtucket—2nd	
S. Dakota	Huron—1st	
	Watertown—2nd	
Tennessee	Memphis—1st	Johnson City
	Knoxville—2nd	Kingsport
Texas	Abilene —1st } Tied	Dallas
	Amarillo—1st } Tied	Laredo
	San Antonio—2nd	Houston
		Fort Worth
		Lubbock
		Wichita Falls
Vermont	Rutland—1st	
Virginia	Roanoke—1st	Norfolk
	Richmond —2nd }	
	Newport News—2nd }	
Washington	Tacoma—1st	Port Angeles
	Colfax—2nd	Spokane
		Bellingham
		Renton
		Bremerton
		Seattle
W. Va.	Parkersburg—1st	
	Weston—2nd	
Wisconsin	Milwaukee—1st	Oshkosh
	Wausau—2nd	
Wyoming	Cheyenne—1st	

Reilly, Yonkers Chief

John J. Reilly, Second Assistant Chief of the Yonkers, N. Y., Fire Department, has been named Chief to fill the vacancy caused by the retirement of Chief Chambers.

He was born in Newark in 1875 and came to Yonkers when he was nine years old. Originally he worked as a carpenter and was appointed a fireman on July 11, 1904. He was advanced to Lieutenant, December 27, 1921; Captain on November 1, 1928, and Second Assistant Chief, December 24, 1931.

Chief John J. Reilly

Chief Reilly is a Spanish War veteran. He is a member of the United Spanish War Veterans, Knights of Columbus, the Fire Department Holy Name Society, and the Firemen's Mutual Aid Society.

Because of a local regulation, which makes it mandatory to retire at the age of sixty-four, he will be forced to retire in two years, or on December 23, 1939.

Ex-Chief Jones Dead

H. C. Jones, Chief of the Fairfield, Ia., department for seven years, died of heart disease. He had resigned last January because of ill health. He is survived by his widow, and three daughters.

CONVENTION DATES

Jan. 20.—NASSAU COUNTY FIREMEN'S ASSOCIATION. Next Quarterly Meeting, Fire Headquarters, Hicksville, L. I., N. Y. Secretary, James McInnes, Jr., Syosset, L. I., N. Y.

Jan. 27 — FIRE CHIEFS' EMERGENCY PLAN. Regular Meeting, Tarrytown, N. Y. Secretary, Captain Walter M. Dawkins, P. O. Box 341, Port Chester, N. Y.

Jan. 27 — FAIRFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Regular Meeting, Springdale, Conn. Secretary, Lieut. John Moehring, Toms Road, Stamford, Conn.

Feb. 27 — FAIRFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Regular Meeting, Fairfield, Conn. Secretary, Lieut. John Moehring, Toms Road, Stamford, Conn.

May 10-14—NATIONAL FIRE PROTECTION ASSOCIATION, 41st Annual Meeting, Managing Director, Franklin H. Wentworth, 60 Batterymarch Street, Boston, Mass.

June—NORTH DAKOTA STATE FIREMEN'S ASSOCIATION. 53rd Annual Convention, Walhalla, N. D.

June 15-18—ANNUAL FIRE COLLEGE. 13th Annual College, University of Illinois, Urbana. Director, Prof. L. H. Provine, of the University; Secretary, Asst. Chief Roy W. Alsip, Champaign, Ill.

June 22-24—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 15th Annual Convention, The Balsams, Dixville Notch, N. H. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass. Chairman, Exhibit Committee, Chief Albert C. Melendy, Nashua, N. H.

July 6-9—PROVINCE OF QUEBEC POLICE AND FIRE CHIEFS ASSOCIATION. 5th Annual Convention, Rivière du Loup, Que. Secretary-Treasurer, Robert Harrington, Chief, Fire Department, McCall-Frontenac Oil Co., Ltd., Suite 8, Windsor Hotel, Montreal, Que.

Sept. 14-15—IOWA FIREMEN'S ASSOCIATION. 60th Annual Convention, Atlantic, Ia. Secretary, Paul A. Soener, Independence, Ia.

Oct. 5-7—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. 58th Annual Convention, Philadelphia, Pa. Secretary, Chief Charles E. Clark, Box 217, Wayne, Pa.

Oct. 12-14—ILLINOIS FIREMEN'S ASSOCIATION. 50th (Golden Anniversary) Convention, Danville, Ill. Secretary, Assistant Chief Roy W. Alsip, Champaign, Ill.

Oct. 19-22—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 65th Annual Conference, Headquarters, Biltmore Hotel, and Exhibits and Sessions, New Municipal Auditorium, Oklahoma City, Okla. Secretary-Treasurer, Ex-Chief James J. Mulcahey, 16 Franklin Ave., Yonkers, N. Y.; Chairman, Exhibits, Chief Ray Tiller, Waterloo, Ia.

Manufacturers' Announcements

Water Spray for Oil Fires

A water spray nozzle for using water to fight oil or gasoline fires is being marketed by Wilson & Cousins, Ltd., Toronto, Ont. The nozzle weighs five pounds. It can give a solid stream from

Combination Spray Nozzle

¼ to 1-inch, a large wide fine spray or mist, a combination of both spray and solid stream, a complete shut off of either spray or solid stream as required, or a complete shut off of both spray and solid stream together. This nozzle converts water into a fine spray which in turn becomes steam when in contact with the fire. The steam blankets or smothers the fire by depriving the fire of oxygen.

Fire Department Records

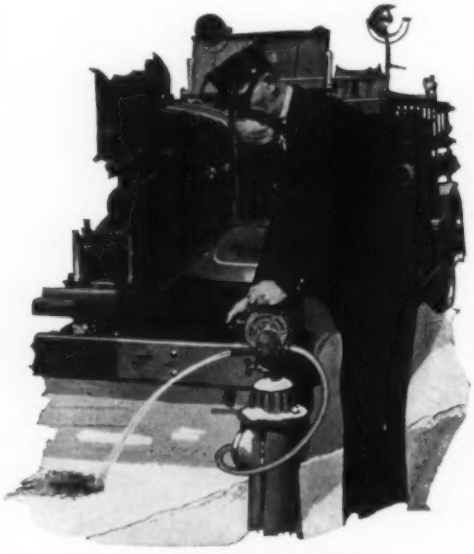
The Eureka Fire Hose Division of the United States Rubber Products, New York City, is distributing gratis a book for keeping records of fires. The daily fire report spreads across two pages and the headings of the various columns are shown in the illustration. The book has spaces for reporting about 250 fires.

Chiefs know the value of well kept records, particularly when it may be necessary to produce figures in court, and this book makes it easier to enter the important facts about each fire.

Keeping Hydrants Dry

A light portable pump is being manufactured by the Akron Brass Manufacturing Company, Wooster, Ohio, for keeping fire hydrants dry and in that way preventing frozen hydrants.

The bottom of the rotary pump is designed to slip over the operating nut of a hydrant, and a large thumb screw is used to tighten the grip on the nut. A



Pump Used to Drain a Fire Hydrant

length of the tubing is lowered into the hydrant barrel through the cap, and the hydrant pumped dry by operating the handle of the pump. The pump as it is used on the hydrant nut weighs 8¾ pounds.

Batteries for Trucks

The B. F. Goodrich Company, Akron, Ohio, has issued a 24-page booklet to present its line of batteries for trucks and buses. Construction features of every type of Goodrich batteries is described and pictured. Three pages are devoted to a discussion of battery power requirements for fire apparatus and trucks.

Chief H. B. Page Retires

After serving thirty-seven years as a member of the East Haven, Conn., fire department, thirty-three of which he was Chief, Harry B. Page presented his resignation to the Board of Public Safety at East Haven on January 1.

In the thirty-seven years Chief Page has seen his Department develop from a hand-drawn hose reel to an up-to-date motorized department, also from one company to six. Retiring Chief Page recently sent letters of appreciation to Chief Lawrence E. Reif and Ex-Chief Rufus Fancher of New Haven for timely suggestions which, he said, helped him on many occasions.

THOMAS F. MAGNER.

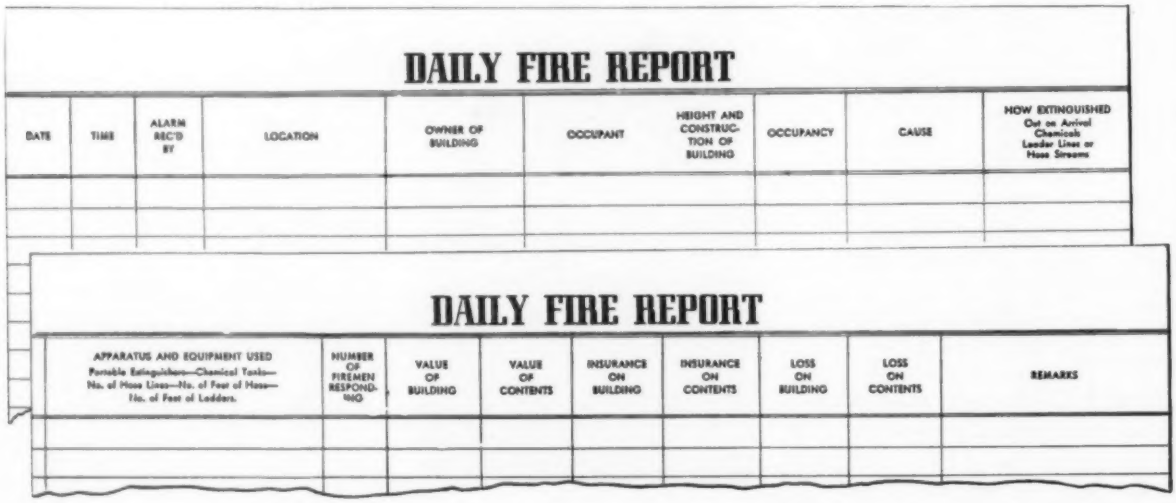
Mansfield of Haverhill Dead

Raymond L. Mansfield, veteran newspaper man and clerk of the Haverhill, Mass., Fire Department, died on December 24 at the age of sixty-one at the Benson Hospital in Haverhill. He suffered a cerebral hemorrhage.

He was appointed clerk of the Fire Department on February 3, 1920.

With his appointment as clerk Mr. Mansfield became a substitute fireman. He is survived by his widow, one son, and a sister.

HARRY BELKNAP.



DAILY FIRE REPORT

DATE	TIME	ALARM REC'D BY	LOCATION	OWNER OF BUILDING	OCCUPANT	HEIGHT AND CONSTRUCTION OF BUILDING	OCCUPANCY	CAUSE	HOW EXTINGUISHED Out on Arrival Chemicals Leader Lines or Hose Streams

DAILY FIRE REPORT

APPARATUS AND EQUIPMENT USED Portable Extinguishers—Chemical Tanks—No. of Hose Lines—No. of Feet of Hose—No. of Feet of Ladders.	NUMBER OF FIREMEN RESPOND-ING	VALUE OF BUILDING	VALUE OF CONTENTS	INSURANCE ON BUILDING	INSURANCE ON CONTENTS	LOSS ON BUILDING	LOSS ON CONTENTS	REMARKS

Facing Pages of the Daily Fire Report Book Issued by the Eureka Fire Hose Division

AFTER all, a good badge is a sensible investment. Not everyone can wear a fireman's emblem of service. You men who have devoted your lives to saving life and property should be proud of your badge.

You will be if you wear a BRAXMAR BADGE. Over fifty-five years of experience goes into every badge you buy.

Catalog on request.

C. G. BRAXMAR CO., 242 West 55th Street, New York

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Made of VANITEX, a waterproof, durable, pliable material, manufactured exclusively for MIDWESTERN. It is acid proof, soft and flexible. There is no better LOOKING or longer WEARING coat made! And the MIDWESTERN is the ONLY firemen's coat equipped with the FAMOUS SAFETY SNAP that can be fastened or unfastened with one hand in a jiffy. The FAMOUS SAFETY SNAP will not catch on clothing.

BEWARE OF CHEAP IMITATIONS

Look for the double eagle label on the coat you buy.

Write for our Free Illustrated Catalog showing complete line of our rubber and canvas garments. Satisfaction Guaranteed.

MIDWESTERN FIREMEN'S COAT

The World's Finest!

See one before you buy any other!

Midwestern Manufacturing Company
MACKINAW, ILLINOIS
Manufacturers of a Complete Line of Quality Firemen's Clothing

KANT-BLAZE FIRE BLANKET

Smothers fires instantly. Ideal for rescue work in wrapping or carrying burned victims. Light, compact; also comes in durable knapsack.

$15 Including Knapsack

Used for years by leading departments. Ask your DEALER.

United Pyro-Chemical Corp.
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34 years service in the fire field

Prompt service Quality products

Shut-Off Nozzles
Controlling Nozzles
Turret Pipes
Fire Department Extinguishers
Extinguisher Holders
Fire Truck Body Fittings
Hose House Equipment
All Types Hose Couplings
Sliding Poles, Railings and Canopies
Fog Nozzles
Hose Test Pumps
Threading Tools
Coupling Expanders
Pump and Hydrant Valves
Hose Racks and Cabinets
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Underwriters' Industrial Extinguishers

ELKHART BRASS MFG. CO.
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Sensational NEW Midship Champion

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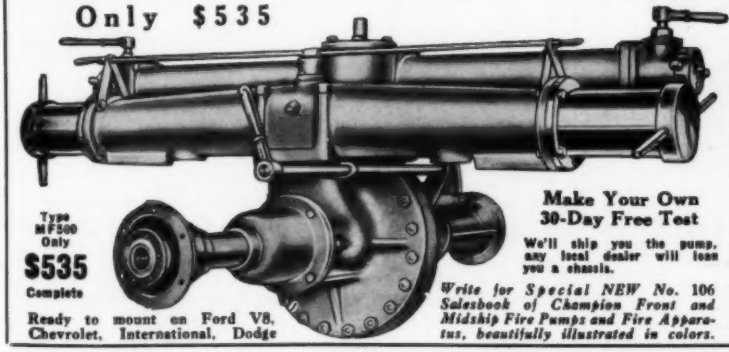

Type MFS00 Only **$535** Complete

Ready to mount on Ford V8, Chevrolet, International, Dodge

Make Your Own 30-Day Free Test

We'll ship you the pump, any local dealer will loan you a chassis.

Write for Special NEW No. 106 Salesbook of Champion Front and Midship Fire Pumps and Fire Apparatus, beautifully illustrated in colors.

A totally new achievement in centrifugal Fire Pump design by Darley engineers.

Weighs only 375 lbs.—specially engineered and built for mounting on 1½-2 ton standard truck chassis without overloading.

Direct drive off chassis propeller shaft. No gears. Simple and dependable. Nothing to go wrong.

Unconditionally Guaranteed for 10 Years.

Meets all requirements of the Underwriters and all State Actuarial Bureaus for 500 GPM Fire Pumps. But actually delivers 600 GPM at suction and 800 GPM from fair hydrants. Automatic Vacuum Primer.

Easily installed without mutilating chassis. Pump fits into the space now occupied by short shaft which connects propeller shaft with transmission. Installation completed in an hour's time.

You can mount the new Champion Midship Fire Pump temporarily on a chassis and make your own tests. If the Champion does not perform fully to your expectations it can easily be removed from chassis and we want you to return it and we will send your money back.

Complete, ready to mount, with Gauges, Booster Valves, etc.

W. S. DARLEY & CO.
2810 Washington Blvd. Chicago, U. S. A.

HEWITT-GUTTA PERCHA
FIRE HOSE

A complete line, including
Wax Treated - Solid Multiple Woven
AND
Single and Double Jacket Hose

Manufactured by
HEWITT RUBBER CORPORATION
BUFFALO, N. Y.
"Territories Available"

Lincoln Steffens says:

"Nothing is done finally and right; nothing is known positively and completely."

● Science is the search for universal laws and methods of activity, which being applied in the proper time, place and manner will give to Man mastery over Nature.

● The improvements in fire hose and couplings which we will soon offer to the trade are the result of exhaustive testing, endless experimenting, which we are sure will bring results which every fireman will approve.

BI-LATERAL FIRE HOSE COMPANY
20 North Wacker Drive Chicago, Illinois

FLAT CURED—
WAX and GUM
TREATED—

Any type you want!

Quaker City makes a complete line of fire hose in a wide price range—but every foot of it is made to give you the best service you can get in its price class. For a complete list of brands and prices write us anytime—

QUAKER CITY RUBBER CO.
PHILADELPHIA, PA.

EXCLUSIVE TERRITORIES
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GOODALL FIRE HOSE
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BELLS

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GEORGE J. KUSS, Vice-Pres. and Treas.

NORTHERN PUMP COMPANY
ESTABLISHED 1907
MINNEAPOLIS, MINN.

Westchester Chiefs Consider Church and Garage Fires

Interesting discussions on the handling of fires in garages and in churches were features of the regular meeting of the Fire Chiefs Emergency Plan, which was held at the Katonah, N. Y., firehouse on the evening of Wednesday, December 16. There was an attendance of 54 Chiefs and other Fire Department officials. The members were welcomed by Supervisor E. P. Berrett, of the township.

The paper on Automobile Repair Shops and Garages pointed out that such buildings are almost invariably of one story, with wooden roofs, covered with tar or gravel. The occupancy consists of cars awaiting or undergoing repairs, or ready for delivery. These cars practically all have gasoline in their tanks, and provide material for a very hot fire. The hazards consist of liability to explosion and large open space, with the inflammable contents, which tend to a quick spread of fire. There is also danger of the roof collapsing and firemen should be kept from mounting the roof, if the fire is well advanced. The successful handling of such a fire depends upon the speed with which heavy streams are thrown upon it, to deaden the blaze and cool off the tanks of the cars. After this, the fire fighters can advance into the building and quickly control the fire. Ventilation is, of course, important.

President Wooley spoke of the importance of careful overhauling at such fires. He cited a case in which a rekindle occurred in the upholstery stuffing in a car in a garage which had been on fire. A fire in a New Jersey garage had been handled by massing two heavy streams and advancing into the fire. This plan cooled the fire very quickly and allowed the department to get it under control. The hazard of steel beams, which are apt to buckle with the heat and pull in the walls, was also stressed.

Chief Taxter, of Tarrytown, told of a fire in which the Plan had functioned, North Tarrytown and Dobbs Ferry having assisted him in handling a serious and threatening blaze. In this instance a number of small streams were used to protect exposures and prevented the spread of the fire to other structures. Captain Siller said that he had especially stressed the covering of exposures in instructions in the schools he had conducted in the departments which had fought this fire, and took considerable credit for the good work they had accomplished.

The second topic—that of church fires—was discussed by Captain Siller. He said that church fires resulted largely through the carelessness of the sexton in maintaining the heating plant, or through defective or overheated flues. He spoke of the inspection system inaugurated in Yonkers. If defects are found, the sextion is notified and if not corrected, the matter is taken to the minister or board in charge of the church. Thus the city has had very few fires of this nature. Ex-Chief Chambers suggested that careful supervision should be had over decorations in churches and places of public assembly during the holidays. Captain Siller said that there should be a uniformed fireman present at all such gatherings. On invitation of Chief Taxter, it was decided to meet next month at Tarrytown, the date being January 27.

Refreshments were served by the local department after the meeting.

Analysis of Operations

Chief J. Ray Roe, Abilene, Tex., in his annual report to the city officials, presented a detailed analysis of the operations of his department.

He listed, month by month, the buildings involved in fires, the value of the property, insurance carried, and the loss to both buildings and contents. Monthly figures show the number of alarms received and the nature of the fire for which the alarm was sent. Trash fires were greatest in number. There was only one incendiary fire during the year.

Chief Roe lists the amount of hose laid, chemicals used, manner in which the fire was extinguished and other data on the department operations. There is also a report on the work of the Bureau of Fire Prevention.

The report should prove very interesting to those who are making comparative studies of department operations.

N. N. W.

Firemen Ask End of "Long Day"

Members of the Hartford, Conn., Fire Department are seeking the abandonment of a Fire Department regulation requiring them to remtain on duty continuously for twenty-four hours every eighth day. The "long day" has prevailed in the department since 1919, when the two-platoon system was adopted in that city.

The pefition was presented to the Board of Fire Commissioners at a recent meeting and was put over for further consideration.

It is the firemen's argument that they should not be required "in this enlightened age" to work twenty-four hours a day in order to obtain a day off. They point out that they represent the only group of workers, either in the city government or in private industry, that is compelled to work a 24-hour day.

Elimination of the "long day" would make it necessary to add about twenty-one firemen to the Hartford department, and an additional appropriation of approximately $40,000 would be required.

While there is a tendency throughout the country to reorganize Fire Departments from a two-platoon to a three-platoon system in order to eliminate the "long day," the Hartford firemen assert they realize such a program would be "too expensive." They point out that under their association's program the two-platoon system would be retained, while the "long day" is eliminated.

Hartford firemen work an average of eighty-four hours a week. The working week calls for three alternating day shifts of ten hours each, three alternating night shifts of fourteen hours each, and a 24-hour "long day."

Fire Commissioner John J. McNally stated that the plan had his approval. Contrasting the eight-hour day of the policemen with the longer day of the firemen, Commissioner McNally called attention to the recent adoption of the three-platoon system, approved by overwhelming vote in New York City.

THOMAS F. MAGNER.

Cure for Sidewalk Chiefs

If plans that are being made by Fire Commissioner John A. Bowman, East Orange, N. J., work out, that city will soon have solved its problem of the sidewalk fire chief. The method of attack is education.

For several months Commissioner Bowman and his son have been using a motion picture camera and photographing how fires are fought and how the fires might have been prevented. He wants to show the critics why firemen do certain things while fighting fires. The pictures will be shown in schools and clubs.

Department and Other Reports Received

Maryland Bureau of Sanitary Engineering—Annual report of the Bureau of Sanitary Engineering, Maryland State Department of Health; twenty typewritten pages.

Erie, Pa.—Sixty-ninth annual report of the Commissioners of Water Works, Erie, Pa.; seventy-three pages with illustrations and folded tables.

Haverhill, Mass. — Forty-fourth annual report of the board of Water Commissioners, Haverhill, Mass.; seventy-three pages.

Bangor, Me.—Sixty-first annual report of the Water Board, Bangor, Me.; forty-six pages and folded tables.

Purdue University—Report of "An Investigation of Stresses in Prestressed Reinforced Concrete Pipes," conducted at the Engineering Experiment Station, Purdue University, Lafayette, Ind. (Research Series No. 46); seventy-four pages, illustrated.

New Bedford, Mass.—Sixty-sixth annual report of the Water Board, New Bedford, Mass.; fifty-nine pages and folded table.

Pirsch City Service Ladder Truck with Cab Delivered to Mishawaka, Ind.

Air Conditioning Discussed by Fairfield Chiefs

The new problems confronting Fire Departments throughout the nation due to oil burners and air conditioning was the subject matter of a talk given by T. Alfred Fleming, National Board of Fire Underwriters, to the December meeting of the Fairfield County Fire Chiefs' Emergency Plan on Wednesday evening, December 16, at Cos Cob, Conn., fire headquarters.

Mr. Fleming discussed the Strand Theatre fire in New York City, which started in a rubbish pile on the ground outside the theatre, but which was sucked into the huge air conditioning equipment of the theatre and gave the New York department a few anxious moments. The Board of Underwriters have set up rules governing the installation of this equipment in an effort to reduce the chances of further fires of this kind.

He stressed two points which are important in reducing our fire losses. 1. The importance of speedy response to calls, pointing out that the first five minutes of every fire are more important than the next five hours. 2. Constructing our buildings so that the fire can be cut off floor by floor. It is the lack of this construction in the old law tenement houses in New York, which makes loss of life so high and disastrous fires so frequent. He also suggested automatic fire alarms in every home to assure quick discovery.

Advising the testing of tanks holding large quantities of oil, Mr. Fleming pointed out that tanks are supposed to last about 15 years but no one will guarantee that they will and suggested that they be tested four times a year.

Other short talks were given by Chief Raymond Chandler, Cos Cob department; Second Selectman Wilbur Peck, Town of Greenwich; Mr. Clark and Col. Marble, Greenwich Board of Estimate and Taxation, who welcomed the visiting firemen to Cos Cob.

Lieut. Amos Anderson, Darien Detective Bureau, was introduced by Chief Victor Veit, Stamford, and discussed the "high pressure" salesmen, who have criminal records, who are soliciting ads for the Derby State Convention program. He exhibited prison records, pictures and finger prints of those making the canvass and said that they were misrepresenting themselves to the storekeepers in obtaining ads. Ex-Chief Albert Anderson, Cos Cob, said that these same men had originally started to solicit ads for the Greenwich firemen for their 1936 convention last August, but that they were dismissed because of their high pressure methods. On a suggestion of Mr. Anderson, it was decided to advise the convention of these "fakers," so that cities holding conventions in the future can be warned of them. He said that they obtained advertisements fraudulently for the State Police program and spent two years in prison for their folly.

Capt. Stephen Pokorney of Springdale suggested that the Plan spread out by aiding in the forming of a Plan in New Haven County. It was decided to invite the Chiefs of New Haven County to one of the Spring meetings held in that end of Fairfield County.

Chief John Morehouse, 26 years Chief of the Brewster, N. Y., Fire Department, responded, after an introduction from the Chair, with a few remarks.

The next meeting will be in Springdale, town of Stamford, on Wednesday evening, January 27.

Xmas Eve Blast Kills Two

Investigation is underway in Asheville, N. C., to determine the cause of a fireworks blast that killed two people, injured eleven others and wrecked a three-story building in the city's business district Christmas eve. Fireworks are banned in Charlotte and other cities in North Carolina.

Chief Duckett and Acting Police Chief Jones have expressed the belief that the disastrous fire probably started when gasoline fumes were ignited by an open charcoal pot. This belief was expressed by officers, after questioning witnesses at the coroner's inquest. It is said a burning charcoal pot and a gasoline stove were in the building at the time of the blast. It is pointed out that the stove, which was not in use at the time, may have leaked and the vapor became ignited, causing the tank to explode, showering burning gasoline on the fireworks.

Another theory is that powder from the fireworks dropped on the floor and became ignited, carrying flames to the vast stock of explosives on the shelves. Dave Moneyham, manager of the store, stated at the inquest that the blast apparently occurred in the basement, where he said there were no explosives of any kind stored. D. G. SPENCER.

Ex-Chief Fox Guest at Providence

Henry A. Fox, former Chief, Boston, Mass., was the guest speaker at the monthly meeting of the Fire Chiefs' Club of Rhode Island held at Providence. Chief Fox had recently retired after serving fifty years in the Boston Fire Department.

Chief Fox gave an interesting talk based on his fire experiences and he thanked the members of the club for the engrossed resolutions that were presented to him by President Frank Charlesworth, when a testimonial dinner was held in Boston.

The members were entertained by motion pictures.

The annual election of officers will be held at the next meeting.

A. ROBERT BLACK.

Blast Follows Water on Fire

Three fire-fighters, including a Captain, were severely injured while fighting a fire in a chemical factory at Toronto, Ont. The Captain may lose the sight of an eye.

A number of sharp detonations were heard as the Fire Department started pumping water on to the fire. Capt. Allan was ripping some tinwork off the first window of the one floor brick building, when a heavy blast hurled a quantity of chemicals in both eyes. He was removed at once from the danger zone.

When it was found that water only made matters worse, foam was used. Chief George Sinclair and Deputy Chief Dunclain McLean were in charge. The blasts were due to metallic sodium. The fire damage was slight.

Small Apparatus Tested at Tokyo, Japan

Fire apparatus, slightly larger than a passenger type automobile, were tested at Tokyo, Japan. Each of the four cars is equipped with a 70 h.p. engine and has a pump rated at 500 g.p.m. The unit is about fifteen feet long, and each cost 6,000 yen ($3,000). The machines were donated to the Fire Department by the League of Tokyo Municipal Protection Corps. The photos show two views of the test before the apparatus was placed in service.

DON'T JUMP at the first net that's offered you. Investigate the merits of all and choose the net that most fire chiefs use—a BROWDER. Complete information on request.

CORY-PATTERSON MFG. CO.
GREENFIELD OHIO

BROWDER LIFE NETS

RESOLVED *for* **1937**

- Never to attack a *flammable liquid fire* without a LUX carbon-dioxide extinguisher.
- Never to fight an *electrical equipment blaze* except with LUX snow-and-gas — clean, dry and harmless.

LUX

Walter Kidde & Company
110 West Street Bloomfield, N. J.

STERLING GENERAL ALARM **SIREN**

The Sterling Vertical Siren gives the Volunteer Fire Department a siren combining every important feature a fire signal should have, namely:

1. POWERFUL and DISTINCTIVE TONE.

2. 100% weatherproof protection. 3. Ball bearing motor capable of carrying 100% overload. 4. Rigid, durable and unit construction. 5. Perfectly dynamically balanced rotor of aluminum. 6. Fast pick-up—long roll. 7. Outside casing rustproof Armco Iron, 4 coats Red Duco.

Write for descriptive folder.

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B-K *high pressure* **CYLINDER VALVES**

Solve the Problem of Binding, Leaking Valves

B-K Valve

Are you having trouble with cylinder valves on your Inhalators and Oxygen Breathing Apparatus? If so, you can eliminate this difficulty completely by placing B-K VALVES on your equipment.

B-K VALVES incorporate ease of operation, positive action and the finest materials and workmanship. There are B-K VALVES available for all types of Fire Department Inhalators and Oxygen Breathing Apparatus regardless of make.

Write for Details and Prices. Be sure to state make and type of your equipment.

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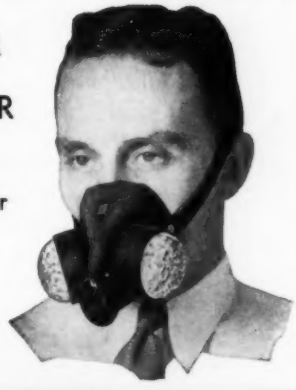
HIGHEST QUALITY

MOTOR FIRE APPARATUS

Send in your Specifications for Prices

WARD LA FRANCE TRUCK CORP.
ELMIRA, N. Y.

You'll Feel
A HEAP SAFER
with
COVER'S DUPOR
Two-Sponge
Practical Pocket
Smoke Respirator



$24 Dozen
Sample: $2, postpaid

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South Bend, Indiana

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Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience go into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
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TANNOSPRAY FOR BURNS

THE TANNOSPRAY KIT, for fire department use, is the only self-contained TANNIC ACID unit that is entirely practical for emergency treatment of burns on the scene of the fire.

Non-technical, it can be operated correctly by the layman with fine results.

TANNIC ACID is recognized as being the only thoroughly scientific treatment for burns of both a major and minor nature.

Your post-card will bring complete literature, specifications, price information and other kindred data.

No obligation, of course.

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2507 RIDGELAND AVE-BERWYN, ILL.

COLT FIRE EQUIPMENT

When buying leader line equipment, see us for prices and particulars on Colt Patent Shut-off Nozzles and Quarter Turn Shut-Off Leader Line Siamese Connections.

Cut shows Colt Little Giant Play Pipe with our patented ladder hook feature used with our regular Colt Shut-off Nozzle. Patented April 28, 1936.

We also manufacture Suction Hose Connections, Gate Valves, Chemical Hose Nozzles and Couplings, Siamese Connections and all sizes of Reducers and Nipples.

Excelsior Brass Mfg. Co.
217-219 W. ILLINOIS ST. CHICAGO, ILL.
Jobbers-Dealers: *Write for Information*

CHECK your yearly cost of maintenance on any old vintage pumper, regardless of original cost, and compare the results with the carrying cost of a modern pumper.

HALE FIRE PUMPS — CONSHOHOCKEN PA

HALE FIRE PUMP CO., Inc.
CONSHOHOCKEN, PA.

CAIRNS LOW HEAD— CUSHION LINED HELMET

COMFORTABLE AS YOUR OLD FELT HAT: WON'T SHAKE OFF

Never go to a fire without the protection of a good helmet. It may save your life.

DESIGN - - MATERIALS - - CONSTRUCTION
ALL PROVED RIGHT BY YEARS OF ACTUAL USE

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CAIRNS & BROTHER
444 LAFAYETTE STREET - Established 1836 - NEW YORK

SOOT BLAST
Puts out chimney fires

Repeat orders prove its value!

5 minutes and a package of SOOT-BLAST, sprinkled over flames at base of chimney, will put out any chimney fire.

Try a case and see!

$4.50 per case 12-26 oz. packages 100-lb. bags $12.50

THE STEBIS CO., Inc., Minneapolis, Minn.

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The World's Newest and Safest
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ATLAS FIRE EQUIPMENT CO.
22 WARREN STREET NEW YORK

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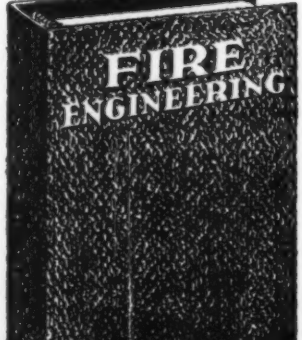

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FIRE HYDRANTS

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ESTABLISHED 1886

WATEROUS COMPANY
SAINT PAUL, MINNESOTA

Chicago Firemen Sue City

Six Chicago firemen filed suit against the city to collect a total of $9,469.23 taken from their salaries from 1932 to 1935 inclusive, under a city economy program. The municipal judges sued the city in a similar manner and won pay restorations.

Firemen Make Large Model

A fire house garden attracted much attention at Baltimore, Md. The garden consisted of a scale model of the Naval Academy at Annapolis. It was about thirty feet long and fifteen feet wide. The model was constructed by the members of Engine Nineteen at their own expense. An aerial photograph was used in the layout and it took one year to make the model.

Over six thousand persons viewed the garden Christmas day. About five thousand persons daily visited the fire house from Christmas to New Year's day.

The visitors spent about an equal amount of time in looking at the apparatus in the station. It consists of a Mack pumper, recently equipped with pneumatic tires. Also an ambulance and the coupe of the 8th District Chief. The last two are 1936 Buicks.

OTIS SMITH.

New Apparatus for Bridgeport, Conn.

A four-year program, which proposes replacement of old mechanical equipment and the purchase of new apparatus to bring the Bridgeport, Conn., Fire Department to a nigh point of efficiency, has been adopted by the Fire Commission in that city.

Purchase of two pieces of apparatus each year through 1940 is proposed in the program, each purchase to meet a specified need in the fire district in which the new equipment will be placed.

For 1937 the Commission proposes purchase of a 60-foot modern city service truck and a 600-gallon pumper, both to be located at No. 3 station on Norman Street. The city service truck will replace a 75-foot aerial ladder truck purchased in 1919, and the booster pumper will replace a hose wagon purchased the same year.

During 1938 the Commission proposes purchase of a city service truck for No. 12 station on Thorme Street, replacing a truck of the same size purchased by the city in 1917, and purchase of a new hose wagon for No. 7 station on Bostwick Avenue to replace apparatus bought in 1914.

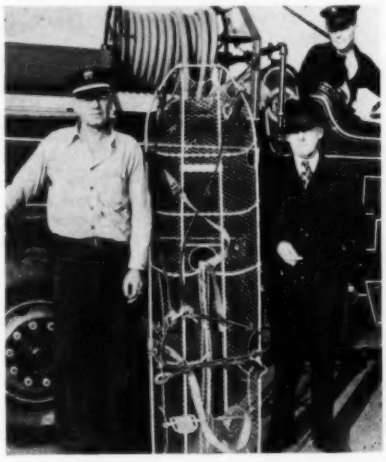
For 1939 the Commission recommends purchase of a 600-gallon booster pumper to replace a 750-gallon pumper which the department acquired in 1920, the new piece to be stationed at No. 11 station on Fairfield Avenue. A city service truck to replace a truck purchased in 1917 would complete the mechanical reorganization of this station.

For the final year of the program, the Commission suggests replacing a 1919 hose wagon with a modern booster pumper for No. 4 station on Madison Avenue, and replacing a 1917 hose wagon at No. 10 station on Putnam Street, with a new city service truck.

THOMAS F. MAGNER.

Firemen Design Rescue Device

San Diego firemen, stationed at Engine Co. No. 15, Ocean Beach, have answered many calls in the past to assist in the rescue of persons who have driven or fallen off the cliffs at or near scenic Sunset Cliffs, one of California's noted coastal beauty spots. In some places the drop from the top of the cliffs to the rock-lined beach below approximates one hundred feet. The rescue work has always been greatly handicapped because of lack of equipment. Firemen themselves have had many narrow escapes in their attempts to rescue victims from the cliffs, the formations of which are very peculiar.



Patient is Strapped to This Stretcher

Now, however, the problem has been solved. Members of Station 15 devised a working model of an apparatus designed to assist them in their rescues and they submitted the model to Chief J. E. Parrish, who readily approved the idea, and turned the model over to Master Mechanic Harry C. Lemon with orders to construct a practical unit along the lines suggested.

The first test of the life-saving device was witnessed by police and sheriffs' officers and other city and county officials. The apparatus is now in service in the Fire Department.

The principle of construction is simple. The device has a boom with two substantial metal poles as basic supports, and a hand-windlass with 150 feet of wound cable. The rescue basket is a Navy type Stoke splint stretcher, in which the patient can be securely strapped. A boatswain's chair can also be attached to lower a doctor to the victim or rescuers.

The device is so constructed that it can be attached to the rear end of a fire engine, or it can be set up as an independent unit. Guy wires provide support against sway and back pull. The unit can be carried completely disassembled and when required for use can be made ready for operation in less than five minutes.

It can also be used for rescues from canyons, wells and other places where steep drops or inaccessibility is an important factor.

F. S. HIRSCH.

Chiefs Entertained

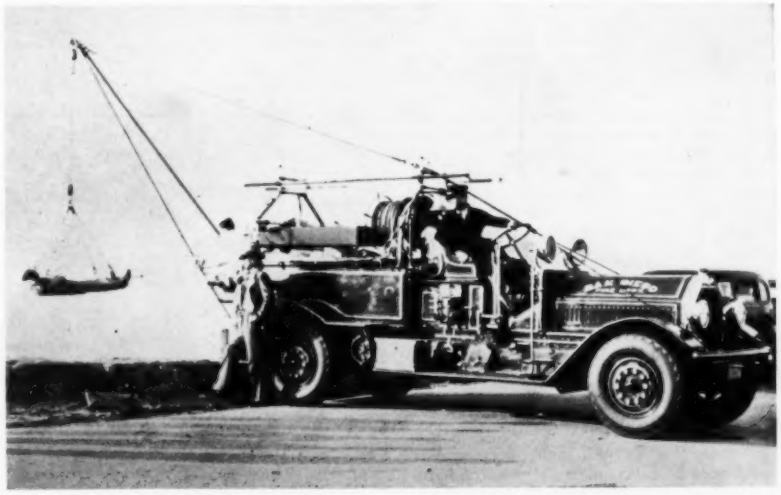
President John J. Scully, of the American Fire Equipment Company, and his associates entertained a large number of Chiefs and lady guests at the "Soda and Acid Club" in the firm's building on Broad Street, Boston, on the afternoon of December 16, after the Chiefs' party in the Parker House.

HARRY BELKNAP.

Chiefs' Club Enjoys Xmas Party

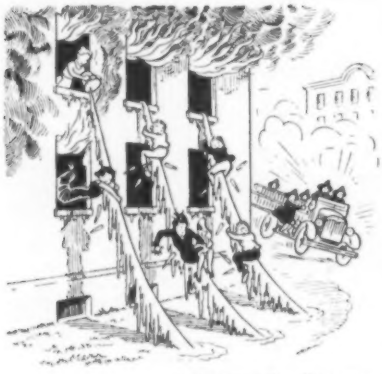
The annual ladies' day and Christmas party of the Fire Chiefs' Club of Massachusetts was held on December 16 in the roof garden of the Parker House in Boston. A turkey dinner, followed by a vaudeville show, was much enjoyed by the large number attending. Each lady was presented with a souvenir. Chief Charles L. McCarthy, Worcester, President, directed the proceedings, assisted by the Secretary, Chief William A. Hill, Belmont.

HARRY BELKNAP.



Raising the Victim by Means of the Stretcher and Derrick

FALSE ALARMS



Courtesy, The Kablegram

For the Tall Story Members

First Liar: "Up where I've been, it was so cold that the milk was delivered in chunks of ice."

Second Liar: "Aw, that's nothing. Where I was they didn't even need fire ladders. They'd just spill a bucket of water out of the window and slide down."

AMBITION

Oh! For the life of a fireman!
Who fights each conflagration.
Oh! For the life of a fireman!
(When he is on vacation.)

Oh! For the life of a fireman!
Who goes to all the fires.
Oh! Just to be a fireman!
(After he retires.)

G. W. O'CONNOR.

METHODICAL EBNER

Then there was the case of Ebner Todd, who was very methodical in his manners. Even during the most trying emergencies, he could not be shaken. When the house of a neighbor caught fire and burned to the ground, Ebner was the last man to arrive on the scene.

When a neighbor asked him why he had not come sooner, he answered:

"Well, I never like to do things in a sputter. I prefer to keep ca'm. I was plowing over in the west field when I first saw the smoke rolling up from the roof, but I never leave an implement in the middle of the field, so I plowed on to the end of the row. Then by the time I drove home, unharnessed the team, and fed them, then hitched up a horse to the buggy, the fire was under full headway. Too bad."

Once upon a time man used to get out of the way of a woman driver through a sense of chivalry. Now it's sheer panic.

NO HARMONY

It was the annual inspection of the department. The men were lined up in front of headquarters in their dress uniform. Down the row went the Chief followed by his officers and city officials. He came to a fellow who seemed out of place with those about him.

"Stand at attention," roared the Chief.

"I am at attention, sir," he replied. "It's the uniform that's at ease."

The apartment dweller often wonders where the janitor gets the ashes that he sprinkles on the sidewalk.

HE TOLD

There was no other organization that had as much prominence nor attracted as many of the young men as the volunteer department. In addition to its activities in the fire field, it was conducted in the manner of a club, with its initiations and secrets and good fellowship.

One of the members was being continually pestered by his rather inquisitive wife to reveal some of the rites at the meetings, and also some of the secrets. One evening when he returned home he said to his wife:

"You're always asking me to tell you a meeting secret. Well, I could tell you one, but you wouldn't like it."

'Oh, George, I will too," she said very much excited.

"O. K. Here's the secret. I have been owing for dues. So I paid my back dues and my dues for the next year, so I won't be able to get you a Christmas present this year."

A trailer is nothing more than a twenty-four-hours-a-day breakfast nook.

FIRE PREVENTIONIST

He had only recently joined the ever-growing ranks of politicians and he was anxious that his first speech to his constituents should be an outstanding success.

He spoke for a long time. He warned of war and the need for a large standing army. Wishing to finish with some quotation, he thought of the proverb about locking the stable door after the horse was stolen. But he wanted something more original. Suddenly a thought came to him.

"Ladies and gentlemen," he cried, "don't, I beg of you—don't wait till your house catches fire before sending for the Fire Department."

When the gardener gave notice, the little lady said, "I don't see how I'm going to get a lawn without you."

NOT PROVIDED

He was accustomed to the rather rigid ways of the country village. When he attended the state convention, he still was unable to shake off the conventions of so many years of firm adherence.

That is why when the young lady he was with suggested having a drink, he left her in the lobby and went down to the bar and inquired:

"Do you serve women at this bar?"

"No," said the bartender good naturedly. "You have to bring your own."

Stray not from the straight and narrow path or you'll get snow in your shoes.

ALL IN TIME

If MacGregor is to be believed, this is what happened to him. He was in the dentist's chair when he realized that all was not well. A tooth had been pulled.

He said to the doctor, "Hey, that wasn't the tooth I wanted pulled."

Replied the dentist, "Calm yourself, I'm coming to it."

Thousands of persons looked upon the first day of the year with an inflated head and a deflated purse, not to mention the lingering brown taste.

—Drawing by "Art" Espey

A Cold Business Proposition

Ask for it... It's FREE

As a reader of FIRE ENGINEERING you are entitled to our buyers' information service free of cost. Here is how it works.

Whenever you are seeking information about any piece of equipment or material that you are planning to buy, first look through the advertisements in this issue. They are your best guide.

Then, if you do not find what you want, just use the blank below to tell us what you need and we will see that you get the information you want.

That's all there is to it. Easy, simple, and it costs absolutely nothing.

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FIRE ENGINEERING
Readers' Service Dept.,
24 W. 40th St., New York.

Gentlemen:

Please have sent to me, without obligation, information about the following items:

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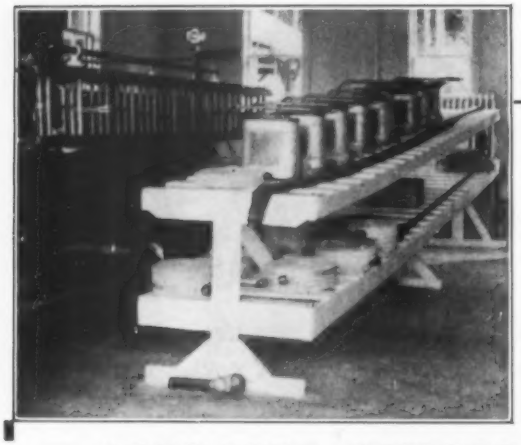
NOTE: The more specific you can be in detailing the items you are interested in, the more specific we can be in having the correct information sent you.

1-37



The **LONG LAKE, NEW YORK**
FIRE DEPARTMENT BELIEVES IN PLENTY OF
INDIAN FIRE PUMPS

NINE big INDIANS sitting in a row. Yes, sir, nine of them at the Long Lake, N. Y., fire house. A small village with big protection. Many times over these tried and tested pumps have proved their value and here they are waiting for the next job.

The ever-increasing number of rural and big city fire departments which are equipping with INDIANS is ample tribute to their efficiency. 5 gal. metal tanks cannot rot or puncture. No propping to fill. Strong 50 ft. stream. No dampness or moisture reaches carrier's back. Only clear water used. Truck carrying rack available. A complete outfit that stands hardest usage fighting grass, rubbish, roof, awning or spot fires.

Our new catalog is now ready. We will be glad to send you a copy on receipt of the coupon.

Made in U. S. A. by

D. B. SMITH & CO.

406 MAIN STREET **UTICA, N. Y.**

PACIFIC COAST AGENTS:
Hercules Equipment & Rubber Co., 550 Third St., San Francisco, Calif.; Western Loggers' Machinery Co., 302 SW. 4th St., Portland, Ore.; Pacific Marine Supply Co., 1217 Western Ave., Seattle, Wash.

— — RETURN COUPON TODAY — —

D. B. SMITH & CO.
406 Main St., Utica, N. Y.

Please send more information about your INDIAN FIRE PUMPS.

Name .....
Address .....
City ..... State .....

ADVERTISING INDEX

ADVERTISING PAYS IN FIRE ENGINEERING

	Page
Akron Brass Co.	3
American Fire Hose Co.	29
American Rubber Mfg. Co.	34
American Steam Pump Co.	29
Atlas Fire Equipment Co.	38
Bi-Lateral Fire Hose Co.	34
Bishinger-Koehler Mfg. Co.	37
Body Guard Mfg. Co.	30
Braxmar Co., C. G.	33
Cairns & Brothers	38
Cory-Patterson Mfg. Co.	37
Cover, H. S.	37
Darley & Co., W. S.	33
Eddy Valve Co.	37
Elkhart Brass Mfg. Co.	33
Eureka Fire Hose Division of United States Rubber Products, Inc.	Back Cover
Excelsior Brass Mfg. Co.	38
Fabric Fire Hose Co.	Inside Back Cover
Federal Electric Co.	5
Fulton Bag & Cotton Mills	30
Gamewell Company	6
Goodall Rubber Co.	34
Hale Fire Pump Co.	38
Hewitt Rubber Corp.	34
Hill Brass Co., N. N.	34
Homelite Corp.	29
Illinois Equipment Co.	37
INFORMATION FOR BUYERS	41
Kidde & Co., Walter	37
Mack Trucks, Inc.	Inside Front Cover
Midwestern Mfg. Co.	33
Northern Pump Co.	34
Peter Pirsch & Sons Co.	22-23
Quaker City Rubber Co.	34
Republic Rubber Co.	5
Smith Mfg. Co., D. B.	42
Stebis Co., The	38
Sterling Siren Fire Alarm Co.	37
United Pyro-Chemical Corp.	33
Ward LaFrance Truck Corp.	37
Waterous Co.	38
Woodhouse Mfg. Co.	34

ACHIEVEMENT
in the cause of
SAFETY

1932 1933 1934 1935 1936

» » » » *and we might add, Chief, that your men are just as safe in using Fabric Fire Hose as our men are in making it*

FABRIC FIRE HOSE COMPANY
SANDY HOOK, CONN.

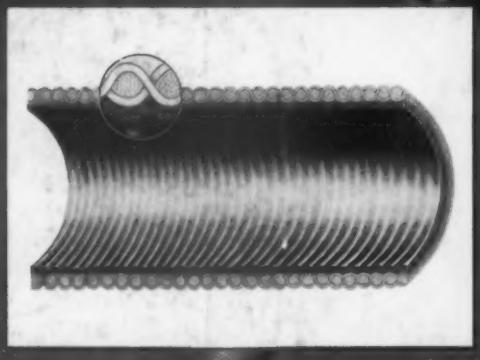
FABRIC FIRE HOSE

stream'line', *adj.* Of or pert. to a streamline; designating a motion or flow that is free from turbulence, like that of a free particle moving in a streamline; hence, *Mech.*, designating a surface, body, etc., designed to afford an unbroken flow of a fluid ..... esp. when the resistance to flow is the least possible.

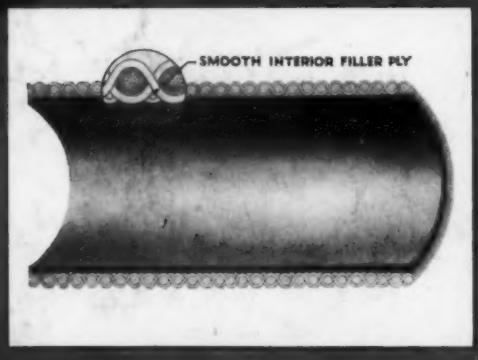
To give a more powerful fire-fighting stream, all brands of Eureka Fire Hose are now "Streamlined."

This is accomplished through two exclusive Eureka developments, namely the Smooth-Interior Filler-Ply and an improved Lap-Seam Rubber Lining.

Call in a Eureka representative. He will explain not only the advantages of "Streamlining" but also Eureka mildew proofing and new long-lived rubber lining and what they mean in the way of longer, more satisfactory service.



This shows how the rubber lining of ordinary fire hose recedes into the valleys of the inner jacket when subjected to hydraulic pressure, giving the waterway a washboard effect which results in excessive friction loss.



In Eureka "Streamlined" Fire Hose, the Smooth-Interior Filler-Ply Cord fills the valleys and eliminates the possibility of "washboarding." Eureka Smooth-Interior Filler-Ply Feature reduces friction loss to a minimum.

EUREKA FIRE HOSE

Division of United States Rubber Products, Inc.

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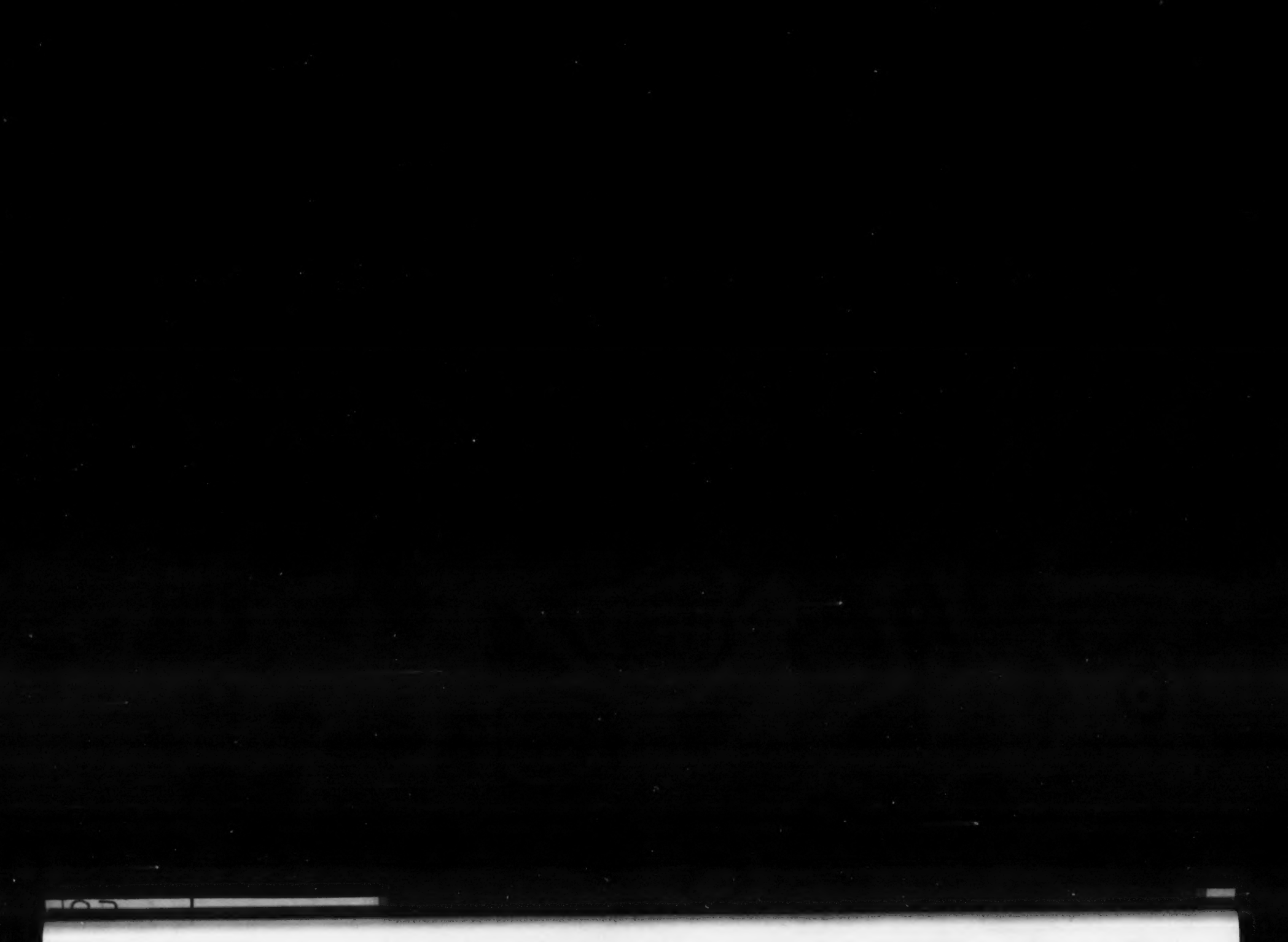
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